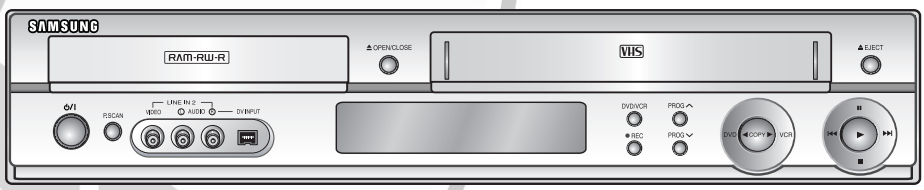
SAMSUNG

Instruction Manual

DVD-VR320



VHS

PAL

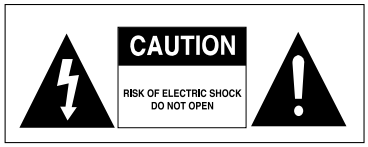
www.samsung.com

AK68-00676L-01

English | Nederlands

Warning

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE THE COVER (OR BACK).
NO USER-SERVICEABLE PARTS ARE INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



This symbol indicates “dangerous voltage” inside the product that presents a risk of electric shock or personal injury.

This symbol indicates important instructions accompanying the product.

Do not install this equipment in a confined space such as a bookcase or similar unit.

WARNING : To prevent damage which may result in fire or electric shock hazard, do not expose this appliance to rain or moisture.

CAUTION : DVD RECORDER & VCR USES AN INVISIBLE LASER BEAM WHICH CAN CAUSE HAZARDOUS RADIATION EXPOSURE IF DIRECTED.
BE SURE TO OPERATE RECORDER CORRECTLY AS INSTRUCTED.

CAUTION

THIS PRODUCT UTILIZES A LASER.
USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.
DO NOT OPEN COVERS AND DO NOT REPAIR YOURSELF. REFER SERVICING TO QUALIFIED PERSONNEL.

This product satisfies CE regulations when shielded cables and connectors are used to connect the unit to other equipment. To prevent electromagnetic interference with electric appliances, such as radios and televisions, use shielded cables and connectors for connections.

IMPORTANT NOTE

The mains lead on this equipment is supplied with a moulded plug incorporating a fuse. The value of the fuse is indicated on the pin face of the plug. If it requires replacing, a fuse approved to BS1362 of the same rating must be used. Never use the plug with the fuse cover omitted if the cover is detachable.
If a replacement fuse cover is required, it must be of the same colour as the pin face of the plug.
Replacement covers are available from your dealer. If the fitted plug is not suitable for the power points in your house or the cable is not long enough to reach a power point, you should obtain a suitable safety approved extension lead or consult your dealer for assistance.
However, if there is no alternative to cutting off the plug, remove the fuse and then safely dispose of the plug. Do not connect the plug to a mains socket, as there is a risk of shock hazard from the bared flexible cord. The product unit accompanying this user manual is licensed under certain intellectual property rights of certain third parties. This license is limited to private non-commercial use by end-user consumers for licensed contents. No rights are granted for commercial use. The license does not cover any product unit other than this product unit and the license does not extend to any unlicensed product unit or process conforming to ISO/IEC 11172-3 or ISO/IEC 13818-3 used or sold in combination with this product unit. The license only covers the use of this product unit to encode and/or decode audio files conforming to the ISO/IEC 11172-3 or ISO/IEC 13818-3. No rights are granted under this license for product features or functions that do not conform to the ISO/IEC 11172-3 or ISO/IEC 13818-3.

Precaution

Important Safety Instructions

Read these operating instructions carefully before using the unit. Follow all the safety instructions listed below. Keep these operating instructions handy for future reference.

1) Read these instructions.
2) Keep these instructions.
3) Heed all warnings.
4) Follow all instructions.
5) Do not use this apparatus near water.
6) Clean only with dry cloth.
7) Do not block any ventilation openings, Install in accordance with the manufacturer's instructions.
8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9) Do not defeat the safety purpose of the polarized or grounding- type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. if the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11) Only use attachments/accessories specified by the manufacturer.
12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13) Unplug this apparatus during lightning storms or when unused for long periods of time.
14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

Handling Cautions

- Before connecting other components to this recorder, be sure to turn them all off.
- Do not move the recorder while a disc is being played, or the disc may be scratched or broken, and the recorder's internal parts may be damaged.
- Do not put a flower vase filled with water or any small metal objects on the recorder.
- Be careful not to put your hand into the disc tray.
- Do not place anything other than the disc in the disc tray.
- Exterior interference such as lightning and static electricity can affect normal operation of this recorder. If this occurs, turn the DVD Recorder & VCR off and on again with the ⏻/I STANDBY/ON button, or disconnect and then reconnect the AC power cord to the AC power outlet. The recorder will operate normally.
- Be sure to remove the disc and turn off the recorder after use.
- Disconnect the AC power cord from the AC outlet when you don't intend to use the recorder for long periods of time.
- Clean the disc by wiping in a straight line from the inside to the outside of the disc.

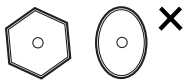
Maintenance of Cabinet

For safety reasons, be sure to disconnect the AC power cord from the AC outlet.

- Do not use benzene, thinner, or other solvents for cleaning.
- Wipe the cabinet with a soft cloth.

Disc Handling

- Use discs with regular shapes. If an irregular disc (a disc with a special shape) is used, this DVD Recorder & VCR may be damaged.



Holding discs

- Avoid touching the surface of a disc where recording is performed.

DVD-RAM/-RW/-R

- Clean with an optional DVD-RAM/PD disc cleaner.
  Do not use cleaners or cloths for CDs to clean DVD-RAM/-RW/-R discs.

DVD-Video, Audio-CD

- Wipe off dirt or contamination on the disc with a soft cloth.

Cautions on handling discs

- Do not write on the printed side with a ball-point pen or pencil.
- Do not use record cleaning sprays or antistatic. Also, do not use volatile chemicals, such as benzene or thinner.
- Do not apply labels or stickers to discs. (Do not use discs fixed with exposed tape adhesive or leftover peeled-off stickers.)
- Do not use scratch-proof protectors or covers.
- Do not use discs printed with label printers available on the market.
- Do not load warped or cracked discs.

Disc Storage

Be careful not to harm the disc because the data on these discs is highly vulnerable to the environment.
- Do not keep under direct sunlight.
- Keep in a cool ventilated area.
- Store vertically.
- Keep in a clean protection jacket.
- If you move your DVD Recorder & VCR suddenly from a cold place to a warm place, condensation may generate on the operating parts and lens and cause abnormal disc playback. If this occurs, remove the disc and wait for one to two hours with the power on before attempting playback.

Disc Specifications

DVD-Video

- A digital versatile disc (DVD) can contain up to 135-minutes of images, 8 audio languages and 32 subtitle languages. It is equipped with MPEG-2 picture compression and Dolby 3D surround, allowing you to enjoy vivid and clear theater quality images in the comfort of your own home.
- When switching from the first layer to the second layer of a double-layered DVD Video disc, there may be momentary distortion in the image and sound. This is not a malfunction of the unit.
- Once a DVD-RW/-R recorded in V Mode is finalised, it becomes DVD-Video.

Video CD

- Only CD-R disks made in the VCD format (ver 1.1 or 2.0) can be played back.
- The moving pictures for PCs can be played back only provided that they are recorded in VCD format in the CD-Recording program.
- Please contact the CD-R maker for the inquiries related to disks.

Audio CD

- An audio disc on which 44.1kHz PCM Audio is recorded.
- Plays CD-DA format audio CD-R and CD-RW discs. This unit may not be able to play some CD-R or CD-RW discs due to the condition of the recording.

CD-RW/-R

MP3 CD-RW/-R

- Only CD-R discs with MP3 files recorded with ISO9660 or JOLIET format can be played back
- Only MP3 files with the “mp3” or “MP3” extension can be used.
- For MP3 files recorded with a VBR (Variable Bit Rates), from 32 Kbps to 320 Kbps, the sound may cut in out.
- Playable bitrate range is from 56Kbps to 320Kbps.
- The unit can handle a maximum of 1000 files and folders.

JPEG CD-RW/-R

- Only JPEG files with the “.jpg”, “.JPG” extension can be used.
- The unit can handle a maximum of 1000 files and folders.
- Maximum size of progressive JPEG is 3M pixels.
- MOTION JPEG is not supported.

Using CD-RW/-R

- Use a 700MB (80 minutes) CD-RW/-R disc. If possible, do not use a 800MB (90 minutes) or above disc, as the disc may not play back.
- If the CD-RW/-R disc was not recorded as a closed session, you may experience a delay in the early play-back time, and all recorded files may not play.
- Some CD-RW/-R discs may not be playable with this unit, depending on the device which was used to burn them. For contents recorded on CD-RW/-R media from CDs for your personal use, playability may vary depending on contents and discs.

Using MPEG4 disc

- Disc : CD-RW/-R, DVD-RAM/-RW/-R
- MPEG4 File with following extensions can be played : .avi, .divx, .AVI, .DIVX
- MPEG4 Codec Format : DivX 3.11 DivX 4.x DivX 5.x DivX-Pro (without QPEL and GMC)
- Available Audio Format : “MP3”, “MPEG”, “WMA”, “LPCM”, “AC3”
- Supported subtitle file formats: .smi, .srt, .sub, .psb, .txt, .ass

DVD-R Disc Playback and Recording

- Once a DVD-R recorded in V Mode is finalised, it becomes DVD-Video.
- You can record onto the available space on the disc and perform editing functions such as giving titles to discs and programmes and erasing programmes before finalising.
- When programming is erased from a DVD-R, that space does not become available. Once an area on a DVD-R is recorded on, that area is no longer available for recording, whether the recording is erased or not.
- It takes about 30 seconds for the unit to complete recording management information after recording finishes.
- This product optimizes the DVD-R for each recording. Optimizing is carried out when you start recording after inserting the disc or turning on the unit. Recording onto the disc may become impossible if optimizing is carried out too many times.
- Playback may be impossible in some cases due to the condition of recording.
- This unit can play back DVD-R discs recorded and finalised with a Samsung DVD video recorder. It may not be able to play some DVD-R discs depending on the disc and the condition of the recording.

DVD-RW Disc Playback and Recording

- Recording and playback can be performed on DVD-RW discs in both V and VR Modes.
- Once a DVD-RW recorded in VR Mode is finalised, you cannot perform additional recording.
- Once a DVD-RW recorded in V Mode is finalised, it becomes DVD-Video.
- In both modes, playback can be performed before and after finalisation, but additional recording, deleting and editing can not be performed after finalisation.
- If you want to record the disc in VR Mode and then record in V Mode, be sure to execute Format. Be careful when executing Format because all the recorded data may be lost.
- A DVD-RW blank disc is initialized to VR Mode when first initialized.

• **DVD-RW(VR mode)**
- This is a format that is used for recording data on a DVD-RAM or DVD-RW disc. You can repeat recording, editing, deleting, partial deletion, creation of playlist, and etc.
- A disc that is recorded in this mode may not be played by existing DVD players.

• **DVD-RW(V mode)**
- This is a format that is used for recording data on a DVD-RW or DVD-R disc. The disc can be played by an existing DVD player once it has been finalised.
- If a disc that has been recorded in V mode by a different manufacturer's recorder but has not been finalised it cannot be played or additionally be recorded by this recorder.

DVD-RAM Disc Playback and Recording

- For cartridge type DVD-RAM discs, remove the cartridge and use the disc only.
- Ensure that the recording mode is set to VR mode. Otherwise, this product will not be able to play the recording.
- You cannot play a DVD-RAM in most DVD players due to compatibility issues.
- Only DVD-RAM standard Version 2.0 discs can be played in this unit.
- DVD-RAM recorded on this unit may not work with other DVD Players. To determine compatibility with these DVD-RAM discs, refer to the user's manual for the player.

COPY PROTECTION

- Many DVD discs are encoded with copy protection. Because of this, you should only connect your DVD Recorder & VCR directly to your TV, not to a VCR. Connecting to a VCR results in a distorted picture from copy-protected DVD discs.
- This product incorporates copyright protection technology that is protected by methods claims of certain U.S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.
- It is permissible to record television programs, film, video tapes and other material only in the event that third party copyrights and other rights are not violated.

Protection

- Program-protected: See page 70 "Locking (Protecting) a Title"
- Disc-protected: See page 82 "Disc Protection"

✻ DVD-RAM/-RW/-R discs that are incompatible with the DVD-VIDEO format can not be played with this product.

✻ For more information on DVD recording compatibility, consult your DVD-RAM/-RW/-R manufacturer.

✻ Use of poor quality DVD-RAM/-RW/-R discs may cause following unexpected problems including, without limitation, recording failure, loss of recorded or edited materials or damage to the recorder.

Do not use the following discs!

- LD, CD-G, CD-I, CD-ROM, DVD-ROM, DVD+R and DVD+RW discs should not be used in this product.

[Note]
Disc types that can be played : CD/CD-RW/-R/MP3/JPEG/DVD-Video/DVD-RAM/-RW/-R.
However, if your DVD-RW disc was recorded with another device, it can be played only if it was recorded and finalised in V mode.

- Some commercial discs and DVD discs purchased outside your region may not be playable with this product. When these discs are played, either "No disc." or "Please check the regional code." will be displayed.
- If your DVD-RW disc is an illegal copy or is not in DVD video format, it may also not be playable.

✻ We recommend using one of the discs in the table as they have been confirmed to be compatible with this unit. Other discs may not perform correctly.

Media	Disc	Speed
DVD-R	TDK	4x
	Beall	4x
	That's	4x
	Maxell	4x
	Panasonic	4x
DVD-RW	TDK	2x
	Maxell	2x
	Optodisc	2x
	Radius	2x
	Verbatim	2x
DVD-RAM	Maxell	3x
	Fujifilm	3x
	TDK	2x
	Panasonic	3x

Disc	No. of maximum recordings by disc type
DVD-RAM	100,000
DVD-RW	1,000
DVD-R	1

- We take no responsibility and offer no compensation for any recording failure, loss of recorded or edited material and/or damage to the recorder arising from usage of unrecommended discs, and take no responsibility and offer no compensation for any subsequent damage caused by above mentioned problems.

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General Features

The DVD-VR320 allows you to record and playback high quality digital images on a DVD-RAM/-RW/-R disc. You can also edit digital images on DVD-RAM/-RW discs.

High quality digital audio and video recording and playback

Record up to about 16-hour images with a double side 9.4 GB DVD-RAM disc, and up to about 8-hour images with a 4.7 GB DVD-RAM/-RW/-R disc, depending on the recording mode.

Creating DVD video titles using DVD-RW/-R discs

With the DVD-VR320, you can create your own DVD video titles on 4.7 GB DVD-RW/-R discs.

A Variety of Recording Options

Select an appropriate recording mode between XP, SP, LP and EP to meet your recording needs.
(See page 56)
- XP mode - High quality, about 1 hour
- SP mode - Standard quality, about 2 hours
- LP mode - Lower quality, about 4 hours
- EP mode - Lowest quality, about 6 or 8 hours

Copying digital camcorder content using DV input jack

Record DV Device onto DVD-RAM/-RW/-R discs or video tape using the DV input jack (IEEE1394-4pin).
(See page 58)

High quality progressive scan

Progressive scanning provides high resolution and flicker free images. The 10-bit 54-MHz DAC, 2D Y/C Separating circuitry and Time Base Corrector processor technology provide you with the highest image playback and recording quality. (See page 18)

A variety of functions with easy-to-use user interface

Integrated menu system and messaging functionality allow you to perform the desired operations easily and conveniently. With a DVD-RAM/-RW(VR mode) disc, you can edit recorded images, create playlist, and edit images in specific sequence according to your needs.

Before Reading the User's Manual

Make sure to check the following terms before reading the user's manual.

Icons that will be used in manual

Icon	Term	Definition
DVD-VIDEO	DVD	This involves a function available in DVD or DVD-RW/-R discs that have been recorded and finalised in V mode.
VCD	VCD	This involves a function available in VCD discs.
DVD-RAM	RAM	This involves a function available in DVD-RAM.
DVD-RW	RW	This involves a function available in DVD-RW.
DVD-R	R	This involves a function available in DVD-R.
CD	CD	This involves a function available in a data CD (CD-R or CD-RW).
JPEG	JPEG	This involves a function available in JPEG discs.
MP3	MP3	This involves a function available in MP3 discs.
MPEG4	MPEG4	This involves a function available in MPEG4 discs.
VHS	VHS	This involves a function available in VIDEO Tape.
	Caution	This involves a case where a function does not operate or settings may be cancelled.
	NOTE	This involves tips or instructions on the page that help each function operate.
	One-Touch button	A function that can be operated by using only one button.
ANYKEY	ANYKEY button	A function that can be operated by using ANYKEY button.

About the use of this user's manual

1) Be sure to be familiar with Safety Instructions before using this product. (See pages 2~5)
2) If a problem occurs, check the Troubleshooting. (See pages 88~90)

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How to use the DVD Recorder & VCR

Step 1 Select the disc type

This unit can record on the following types of discs. If you want to repeatedly record on the same disc or you want to edit the disc after recording, select a rewritable DVD-RW or DVD-RAM type disc. If you want to save a recording without any changes, choose a non-rewritable DVD-R.

Step 2 Format the disc to start recording

Unlike a VCR, the recorder automatically starts formatting when an unused disc is inserted. This is required for the preparation of recording on a disc.

Using a DVD-RAM
This type of disc can be formatted in DVD-Video Recording format (VR mode). You can edit recorded images and create a playlist in a specific sequence according to your requirements.

Using a DVD-RW
This type of disc can be formatted in either DVD-Video format (V mode) or DVD-Video Recording format (VR mode). For an unused disc, a message that asks whether to format in VR Mode or not is displayed. You can play a V mode disc on various DVD components. A VR mode disc allows more varied editing.

Using a DVD-R
This type of disc can be formatted in DVD Video format. After formatting is complete, you can record on the disc. You can play this type of disc on various DVD components only when they have been finalised.

Note

- You can only use either the VR or Video mode on a DVD-RW, but not both at the same time.
- You can change the DVD-RW format to another format. It should be noted that the data of the disc may be lost when changing formats.

Step 3 Recording

There are two different recording methods: Direct Recording and Timer Recording. Timer recording is classified as a Date : Once, Daily or Weekly Recording mode : XP (high quality mode), SP (stan-dard quality mode), LP (long recording mode), and EP (extended mode).

Step 4 Playing

You can select the title you want to play in a displayed menu and then immediately start playback. A DVD consists of sections called titles, and sub sections called chapters.
During recording, a title is created between two points where you start and stop recording.
Chapters will be created automatically when you finalise recording on DVD-RW/-R discs in V mode. The chapter's length (interval between chapters) varies according to the recording mode.

Step 5 Editing a recorded disc

Editing on discs is easier than conventional video tapes. The recorder supports many different edit functions, possible only with DVDs.
With a simple and easy edit menu, you can operate various edit functions, such as delete, copy, rename, lock, etc., on a recorded title.

Creating a playlist (DVD-RAM/-RW in VR mode)

With this recorder, you can create a new playlist on the same disc and edit it without the change of the original recording.

Step 6 Finalising & Playing on other DVD components

To play your DVD on other DVD components, finalising may be necessary. First, finish all editing and recording operations, then finalise the disc.

When using a DVD-RW disc in VR Mode

Although finalising is generally unnecessary when playing the disc on a VR Mode compatible component, a finalised disc should be used for playback.

When using a DVD-RW disc in V mode

The disc should be finalised first to enable playback on anything other than this recorder. No more editing or recording can be made on the disc once it has been finalised.

When using a DVD-R disc

You should finalise the disc to play it on a component other than this recorder. You cannot edit or record on the disc once it has been finalised.

Unpacking

Accessories

- Audio/Video Cable
- RF Cable for TV Control
- Remote Control
- Batteries for Remote Control (AAA Size)
- User's Manual
- Quick Guide

Preparing the Remote Control

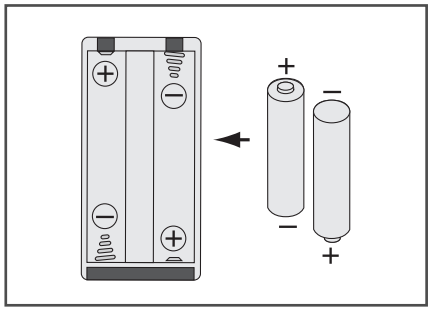
Install Batteries in the Remote Control

- Open the battery cover on the back of the remote control.
- Insert two AAA batteries. Make sure that the polarities (+ and –) are aligned correctly.
- Replace the battery cover.

If the remote control does not operate properly:

- Check the polarity + – of the batteries (Dry-Cell)
- Check if the batteries are drained.
- Check if the remote sensor is blocked by obstacles.
- Check if there is any fluorescent lighting nearby.

Dispose of batteries according to local environmental regulations. Do not put them in the household trash.



Setting the Remote Control

Your DVD Recorder & VCR remote control will work with Samsung televisions and compatible brands.

To determine whether your television is compatible, follow the instructions below.

1. Switch your television on.
2. Point the remote control towards the television.
3. Press and hold the **TV** button and enter the two-figure code simultaneously corresponding to the brand of your television, by pressing the appropriate numer buttons.

BRAND	SELECT NUMBER
SAMSUNG	TV +01, +02, +03, +04, +05, +06, +35
AKAI	TV +12
BANG & OLUFSEN	TV +22
BLAUPUNKT	TV +09
BRANDT	TV +14
BRIONVEGA	TV +22
CGE	TV +21
CONTINENTAL EDISON	TV +24
FERGUSON	TV +14
FINLUX	TV +02, +17, +21
FISHER	TV +12
FORMENTI	TV +22
GRUNDIG	TV +09, +17, +21
HITACHI	TV +11, +13, +14, +24
IMPERIAL	TV +21
JVC	TV +32
LG	TV +02, +30
LOEWE	TV +02
LOEWE OPTA	TV +02, +22
METZ	TV +22
MITSUBISHI	TV +02, +16
MIVAR	TV +21, +29
NOKIA	TV +23
NORDMENDE	TV +13, +14, +22, +24
PANASONIC	TV +08, +23, +24, +25, +26, +27
PHILIPS	TV +02, +20, +22
PHONOLA	TV +02, +20, +22
PIONEER	TV +14, +23
RADIOLA	TV +02, +20
RADIOMARELLI	TV +22
REX	TV +23
SABA	TV +13, +14, +22, +23, +24
SALORA	TV +23
SANYO	TV +12, +16
SCHNEIDER	TV +02
SELECO	TV +23
SHARP	TV +10, +16, +31
SIEMENS	TV +09
SINGER	TV +22
SINUDYNE	TV +22
SONY	TV +15, +16
TELEAVA	TV +14
TELEFUNKEN	TV +14, +24, +28
THOMSON	TV +13, +14, +24
THOMSON ASIA	TV +33, +34
TOSHIBA	TV +07, +16, +17, +18, +19, +21
WEGA	TV +22
YOKO	TV +02

Result: If your television is compatible with the remote control, it will switch off.
It is now programmed to operate with the remote control.

Note

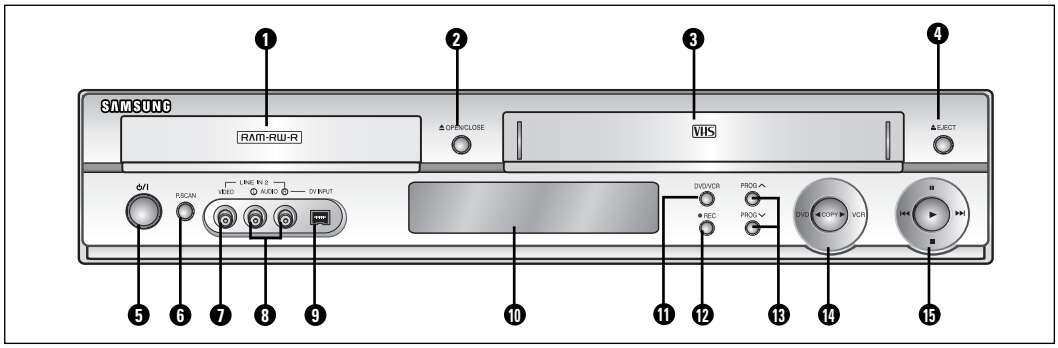
- If several codes are indicated for your television brand, try each one in turn until you find one that works.
- If you replace the remote control's batteries, you must set the brand code again.

You can then control the television using the following buttons.

Button	Function
TV STANDBY/ON	Used to switch the television on and off.
INPUT SEL.	Used to select an external source.
VOL + or –	Used to adjust the volume of the television.
PROG/TRK (∧ / ∨)	Used to select the desired programme.
TV MUTE	Used to toggle the sound on and off.
0~9	Used to input number directly.

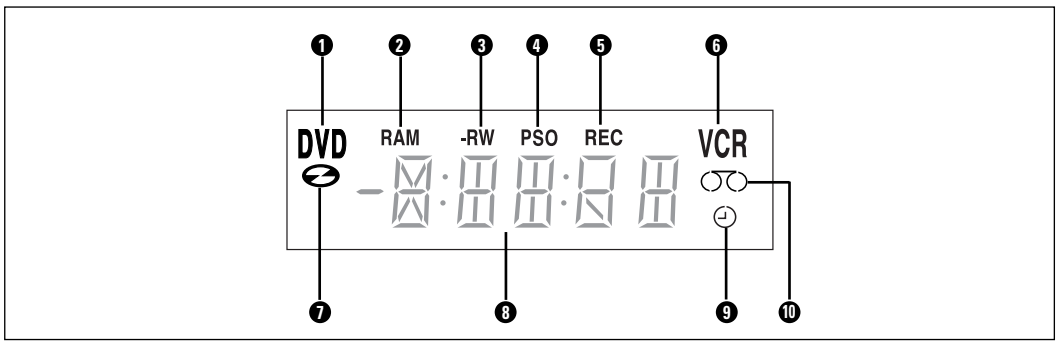
Description

Front Panel



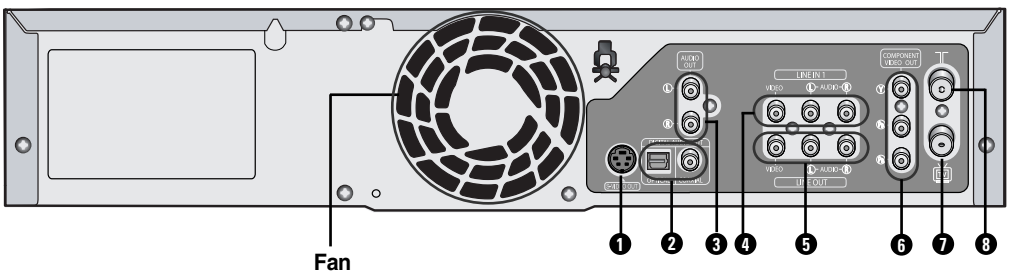
1. DVD DECK
2. DVD OPEN/CLOSE BUTTON
3. VCR DECK
4. VCR EJECT BUTTON
5. STANDBY/ON BUTTON
6. P.SCAN BUTTON
7. VIDEO INPUT JACK (LINE IN 2)
8. AUDIO L.R INPUT JACKS (LINE IN 2)
9. DV INPUT JACK
10. FRONT PANEL DISPLAY
11. DVD/VCR SELECT BUTTON
12. RECORD BUTTON
13. PROG ∧ / ∨ BUTTONS
14. COPY BUTTONS
15. PLAY/STILL, REW/SKIP, F.F/SKIP, STOP BUTTONS

Front Panel Display



1. DVD is activated.
2. DVD-RAM is activated.
3. DVD-R or DVD-RW is activated.
4. Progressive Scan mode is activated.
5. Record function is activated.
6. VCR is activated.
7. DVD or CD media is loaded.
8. The time, counter position or current deck status is indicated.
9. When you set a Timer recording, this indicator is light.
10. VHS Videotape is loaded.

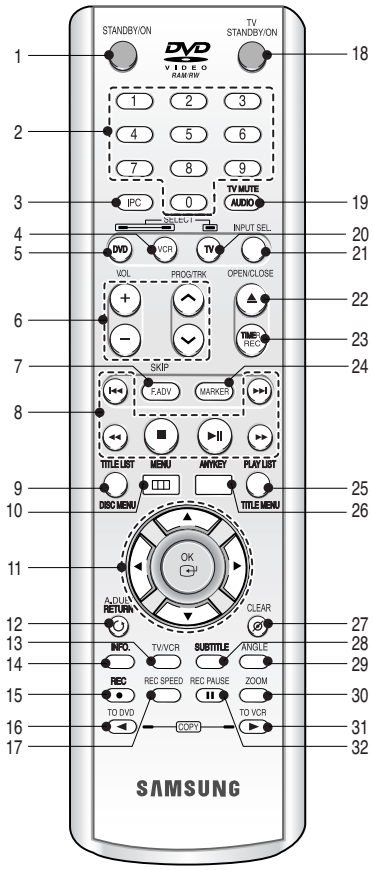
Rear Panel



Fan
The fan always revolves when the power is on.
Ensure a minimum of 4" clear space on all sides of the fan when installing the product.

1. S-VIDEO OUT JACK
2. DIGITAL AUDIO OUT JACK (OPTICAL/COAXIAL)
3. AUDIO L, R OUT JACKS
4. LINE IN 1 JACKS (Video/Audio)
5. LINE OUT JACKS (Video/Audio)
6. COMPONENT VIDEO OUT JACKS
7. OUT TO TV CONNECTOR
8. AERIAL IN CONNECTOR

Tour of the Remote Control



1. STANDBY/ON Button

2. NUMBER Button

3. IPC Button

4. VCR Button
Press this when you use a VCR.

5. DVD Button
Press this when you use a DVD.

6. TV Control Buttons
- VOLUME Button
  TV volume adjustment
- PROG Button
  Press this to select a TV channel.
- TRK Button
  Press this to remove the white line.

7. F.ADV/SKIP Button

8. Playback-related Buttons
Forward/Rewind, Search, Skip, Stop, Play/Still

9. TITLE LIST/DISC MENU Button
Press this to enter the TITLE list/Disc menu.

10. MENU Button
Brings up the DVD Recorder & VCR's setup menu.

11. OK/DIRECTION Buttons (▲/▼/◄/► Buttons)

12. RETURN Button
Returns to previous menu.

A.DUB
Used to activate the audio dubbing.

13. TV/VCR Button (Not available)

14. INFO. Button
This will display current setting or disc status.

15. REC Button
Press this to make a recording on DVD-RAM/-RW/-R discs and VHS Video tape.

16. TO DVD copy Button
Press this when you copy from the VCR to the DVD.

17. REC SPEED Button
Press this to set the desired recording time and picture quality.

18. TV STANDBY/ON Button

19. AUDIO/TV MUTE Button
Press this to access various audio functions. This operates as sound mute (TV mode).

20. TV Button
Press this to operate TV.

21. INPUT SEL. Button
Select input signal in external input mode (Tuner or LINE IN 1, LINE IN 2 or DV input).

22. OPEN/CLOSE Button
To open and close the disc tray.

23. TIMER REC Button
Press this when you use Timer Recording.

24. MARKER Button
Press this to bookmark or mark a position while playing a disc.

25. PLAY LIST/TITLE MENU Button
Press this to enter the Edit playlist/Title menu.

26. ANYKEY Button
Press this to view the status of the disc that is being played.

27. CLEAR Button

28. SUBTITLE Button
Press this to switch the DVD's subtitle language.

29. ANGLE Button
Press this to access various camera angles on a disc (if the disc contains multiple camera angles).

30. ZOOM Button
Zooms in on screen.

31. TO VCR copy Button
Press this when you copy from the DVD to the VCR.

32. REC PAUSE Button
Press this to pause during recording.

Connecting & Setting Up

Quick Overview 15
Connecting DVD Recorder & VCR to the TV using the RF Cable 16
Connecting DVD Recorder & VCR to the TV using the Audio/Video Cable 16
Connecting the S-Video Cable 17
Connecting the Component Video Cable 17
AV Receiver Connections 18
Connecting an External Devices 19

Quick Overview

A Quick overview presented in this guide will give you enough information to start using the DVD Recorder & VCR.

Connecting DVD Recorder & VCR to the TV using the RF Cable

Connecting DVD Recorder & VCR to the TV using the Audio/Video Cable

Connecting the S-Video Cable

Connecting the Component Video Cable

AV Receiver Connections

Connecting an External Devices

Connecting DVD Recorder & VCR to the TV using the RF Cable

Note

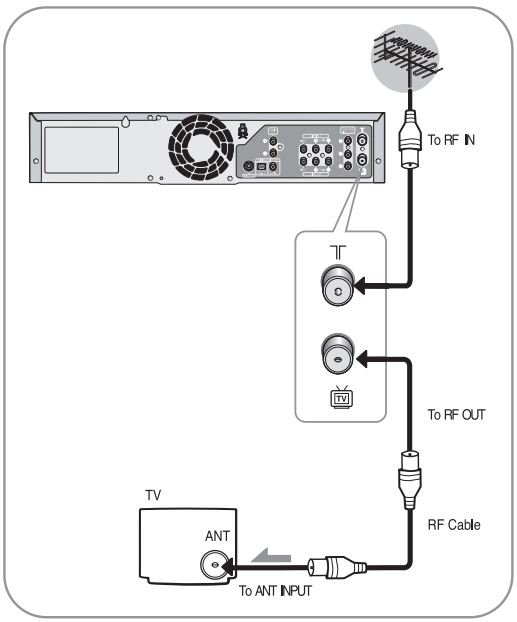
■ Make sure that both the television and the DVD Recorder & VCR are switched off before connecting the cables.

1 Remove the aerial or network input cable from the television.

2 Connect this cable to the 75Ω aerial jack marked ⊣⊢ on the rear of your DVD Recorder & VCR.

3 Plug the RF Cable supplied into the TV jack on your DVD Recorder & VCR.

4 Plug the other end of the RF Cable into the connector previously used for the aerial on the television.



Connecting DVD Recorder & VCR to the TV using the Audio/Video Cable

You can connect your DVD Recorder & VCR to the television using the Audio/Video cable if the appropriate input is available on the television. You thus:

- Obtain better quality sound and pictures
- Simplify the setting up procedure of your DVD Recorder & VCR

Note

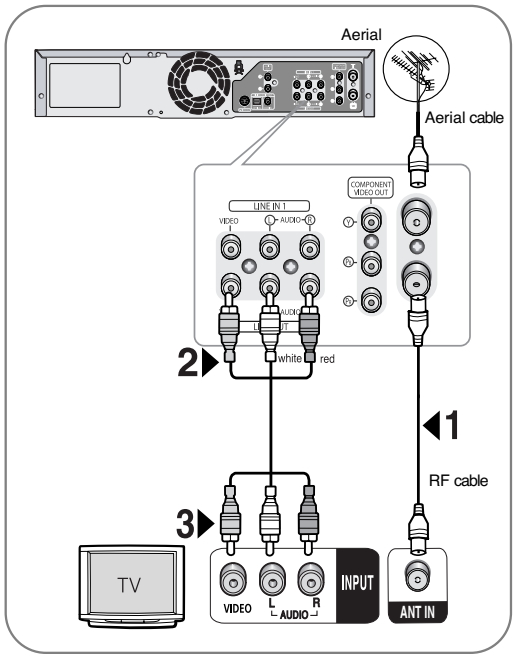
■ Regardless of the type of connection chosen, you must always connect the RF Cable supplied. Otherwise, no picture will be visible on the screen when the DVD Recorder & VCR is switched off.

■ Make sure that both the television and the DVD Recorder & VCR are switched off before connecting the cables.

1 Connect the RF Cable.

2 Connect one end of the Audio/Video cable to the Video output and Audio L, R output jack on the rear of the DVD Recorder & VCR.

3 Plug the other end into the appropriate connector on the television.



Connecting the S-Video Cable

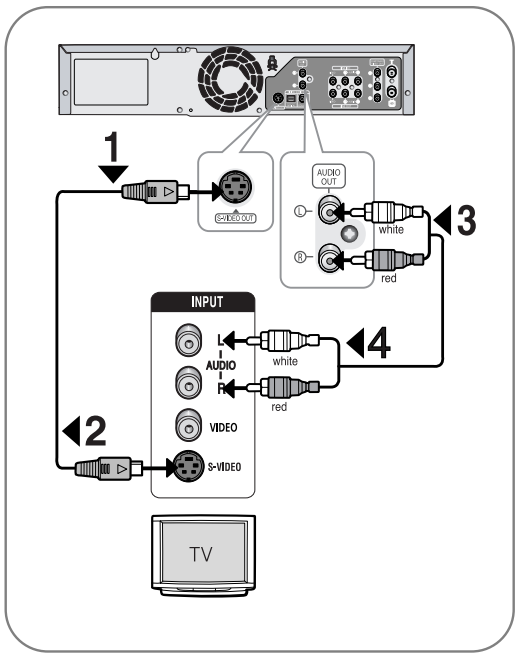
You will enjoy high quality images. S-Video seperates the picture element into black and white(Y) and colour(C) signals to present clearer images than composite video output mode.

1 Connect one end of the S-Video cable into the **S-VIDEO** output jack on the rear of the DVD Recorder & VCR.

2 Plug the other end of the S-Video cable into the appropriate input connector on the television.

3 Connect one end of the audio cable into the **AUDIO** output jacks on the rear of the DVD Recorder & VCR.
- Take care to respect the colour coding of the left and right channels.

4 Plug the other end of the audio cables into the appropriate input connectors on the television.

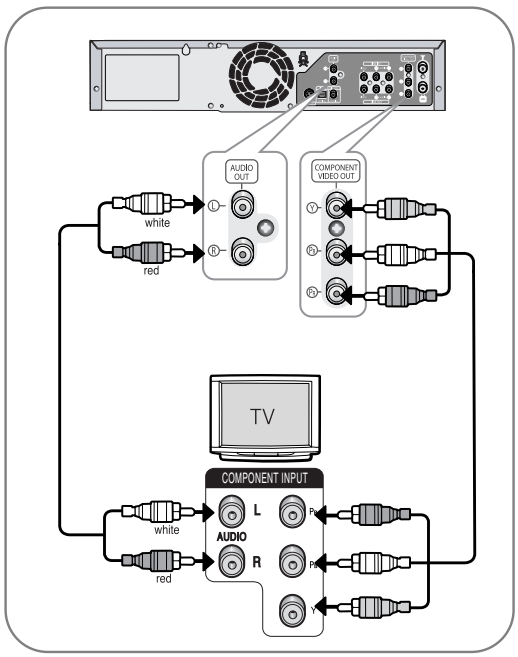


Connecting the Component Video Cable

You will enjoy high quality accurate colour reproduction images. Component video seperates the picture element into black and white(Y), blue(P_B), red(P_R) signals to present most clear and clean images.

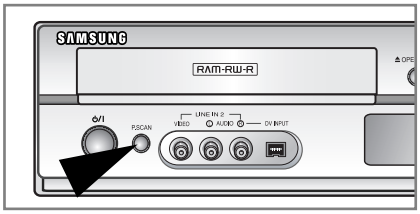
1 Connect Component video cables between the **COMPONENT VIDEO OUT** jacks on the rear of the DVD Recorder & VCR and **COMPONENT VIDEO IN** jacks on the rear of the TV.

2 Connect audio cables between the audio output jacks on the rear of the DVD Recorder & VCR and **AUDIO IN** jacks on the rear of the TV.
- Take care to respect the colour coding of the up and down channels.
- Press the input selector on your TV remote control until the Component signal from the DVD Recorder & VCR appears on your TV screen.



Progressive Scan

Your TV must support progressive scan input to allow to watch progressive scan component video out. (See page 37)



- For more information about Progressive setting, refer to the page 37.
- Make sure that the colour coded connections match. That is, the Y, P_B and P_R component output jacks of your DVD Recorder & VCR should be connected to the exact corresponding component input jacks on your TV. Otherwise, red or blue images will be displayed on the TV screen.
- Consumers should note that not all high definition television sets are fully compatible with this product and may cause artifacts to be displayed in the picture. In case of progressive scan picture problems, it is recommended that you switch the connection to the standard definition output. If there are questions regarding your Samsung TV set's compatibility with this DVD Recorder & VCR, please contact our customer service center.

Note

- See your TV User's Manual to find out if your TV supports Progressive Scan. If Progressive Scan is supported, follow the TV User's instructions regarding Progressive Scan settings in the TV's menu system.
- Depending on your TV, the method of connection may differ from the illustration above.
- What is "Progressive Scan"? Progressive scan has twice as many scanning lines as the interlace output method has. Progressive scanning method can provide better and clearer picture quality.
- You must connect the DVD Recorder & VCR to the component(s) before using the Progressive Scan feature.

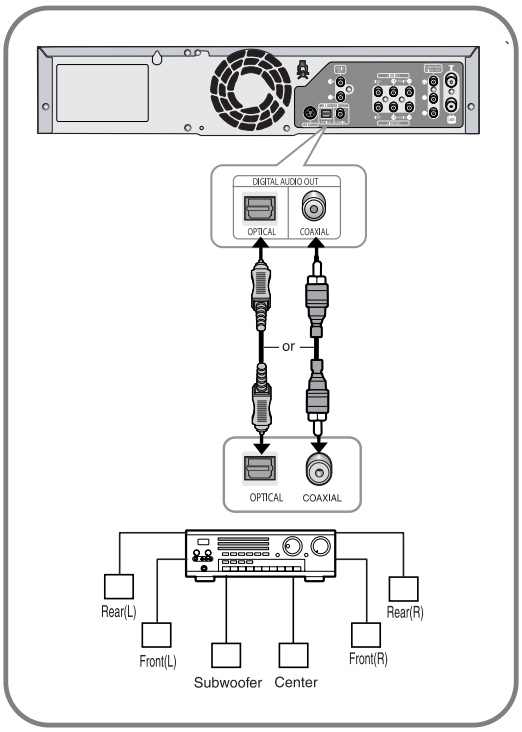
AV Receiver Connections

To take full advantage of the movie theater experience that DVD offers, you may want to connect your DVD Recorder & VCR to a complete Surround Sound system, including an A/V Receiver and six Surround Sound speakers.
If your A/V receiver is equipped with a Dolby Digital Decoder, you have the option to bypass the DVD Recorder & VCR's built-in Dolby Digital Decoder. Use the Digital Audio Out connection below.
To enjoy Dolby digital or DTS sound, you must set up the audio settings. (See page 29)

Manufactured under license from Dolby Laboratories. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories.

"DTS" and "DTS Digital Out" are trademarks of Digital Theatre Systems, Inc.

1 Connect a Digital Audio optical/coaxial cables from the Digital Audio Out jacks on the rear panel of the DVD Recorder & VCR to their corresponding Digital Audio Input jacks on your A/V Receiver.



Connecting External Devices

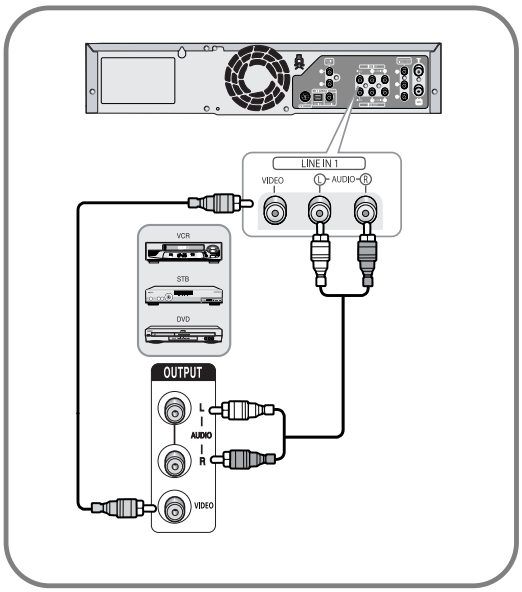
This allows you to connect your DVD Recorder & VCR to other external devices and view or record their outputs.

- Case 1 : Connecting a VCR, Set-Top Box(STB) or DVD Recorder & VCR to the AUDIO/VIDEO LINE IN 1 jacks.
- Case 2 : Connecting a Camcorder to the LINE IN 2 in jacks.
- Case 3 : Connecting a DV Device to the DV IN jack

Case 1 : Connecting a VCR, Set-Top Box(STB) or DVD Recorder & VCR to the AUDIO/VIDEO LINE IN 1 jacks

Connecting a VCR or external device to AUDIO/VIDEO LINE IN 1 jacks of the DVD Recorder & VCR.

You can record from connected equipment (VCR, STB or DVD).

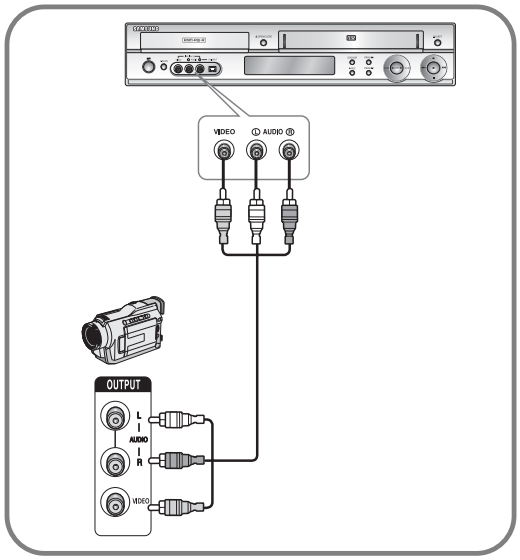


Note

- You can also use the LINE IN 2 jacks on the front panel of the DVD Recorder & VCR.
- Copy protected content cannot be recorded.

Case 2 : Connecting a Camcorder to the LINE IN 2 jacks

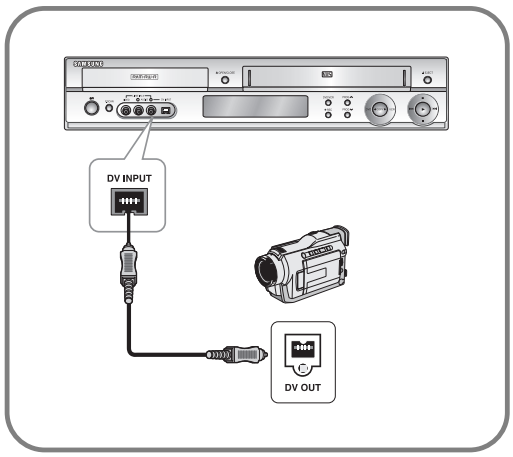
You can use the LINE IN 2 jacks on the front panel of the DVD Recorder & VCR. You can record from connected equipment.



Case 3 : Connecting a DV Device to the DV IN jack

If your DV Device has a DV output jack, connect it to the DV input jack of your DVD Recorder & VCR.

- If your camcorder has a DV output jack, see page 58 for more information.



Note

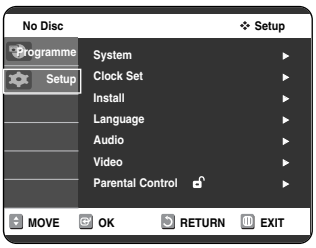
- If the input is not selected automatically, use **INPUT SEL.** button to select proper input.

System Setup

On-Screen Menu Navigation *20*
Plug & Auto Setup *21*
Setting the Date and Time *22*
Auto Setup *23*
Manual Setup *24*
Clearing a Preset Station *25*
Changing the Preset Manual Setup Table *26*
Selecting the RF OUT Sound Mode (B/G-D/K, I) *27*
VIDEO Output CH *27*
Setting Up the Language Options *28*
Setting Up the Audio Options *29*
Setting Up the Display (Video) Options *30*
DivX Registration *30*
Setting Up the Parental Control *31*
VCR Setting *32*
DVD EP Mode Time *34*
Automatic Chapter Creator *34*
Front Display *36*
NICAM *36*
Setting up the Progressive scan *37*
Canceling the Progressive scan *37*

On-Screen Menu Navigation

The on-screen menus allow you to enable or disable various functions on your DVD Recorder & VCR. Use the following buttons to open and navigate through the on-screen menus.



1 **MENU Button**
Press this button on the remote control to open the on-screen MENU.
Press again to exit the on-screen MENU.

2 **▲/▼,◄/► Buttons**
Press these buttons on the remote control to move the selection bar ▲/▼,◄/► to cycle through the menu options.

3 **OK Button**
Press this button on the remote control to confirm any new settings.

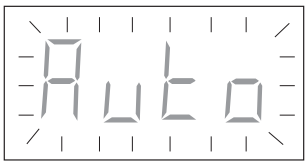
4 **RETURN Button**
Press this button on the remote control to return to the previous MENU screen displayed or to exit the on-screen MENU.

Plug & Auto Setup

The DVD Recorder & VCR will automatically set itself up when it is plugged into the mains for the first time.
TV stations will be stored in memory. The process takes a few minutes. The DVD Recorder & VCR will then be ready for use.

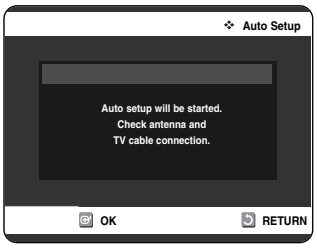
1 Connect the RF cable as indicated on page 16.
- Connecting Your DVD Recorder & VCR to the TV using the RF Cable.

2 Plug the DVD Recorder & VCR into the mains.
- "Auto" in the front panel display flickers.

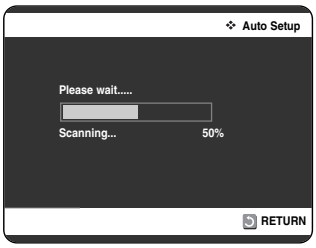


3 The Language Set menu is displayed.
Press the ▲ or ▼ button to select the desired language, then press **OK** button.

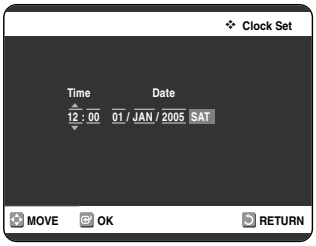
4 Start the auto setup.



5 Start the auto scanning.



6 Check the date and time.



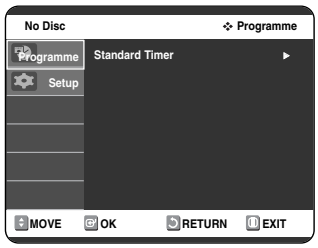
Refer to "Setting the Date and Time" to change the date and time. (See page 22)

Setting the Date and Time

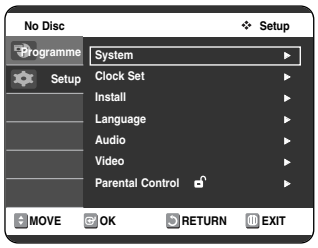
Your DVD Recorder & VCR contains a 24-hour clock and calendar used to:

- Automatically stop programme recording
- Preset your DVD Recorder & VCR to record a programme automatically
- You must set the date and time when you purchase the DVD Recorder & VCR
- Do not forgot to reset the time when you change clocks from winter to summer time and vice versa.

1 With the unit in Stop mode/No Disc mode, press the **MENU** button.



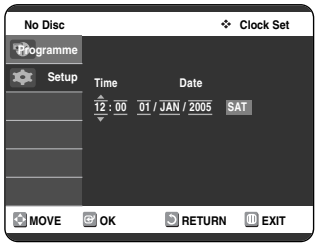
2 Press the ▲▼ buttons to select **Setup**, then press the **OK** or ► button.



3 Press the ▲▼ buttons to select **Clock Set**, then press the **OK** or ► button.

4 Press the ◄► buttons to select the hour, minutes, day, month and year.

- The option selected highlight.



5 Press the ▲▼ buttons to increase or decrease the value.

- The day of the week is displayed automatically.
- You can hold the ▲▼ buttons down to scroll more quickly through the values.

6 Press the **OK** button, then the date and time will be saved. If you don't press the **OK** button, it will not be saved.

7 Press the **MENU** button to exit the menu.

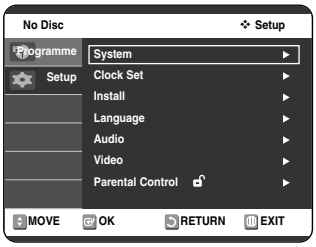
Auto Setup

You do not need to preset the stations if you have already set them automatically (See Plug & Auto Setup on page 21).
Your DVD Recorder & VCR contains a built-in tuner used to receive television broadcasts.
You must preset the stations received through the tuner. This can be done:

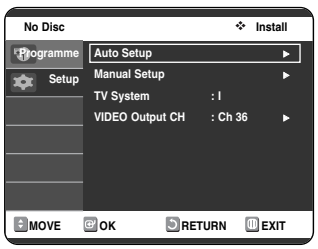
- Plug & Auto Setup (See page 21)
- Auto Setup
- Manual Setup (See pages 24~25)

1 With the unit in Stop mode/No Disc mode, press the **MENU** button.

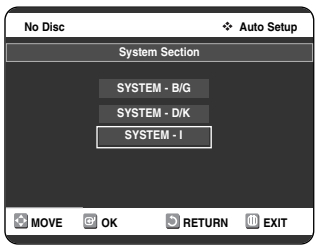
2 Press the ▲▼ buttons to select **Setup**, then press the **OK** or ► button.



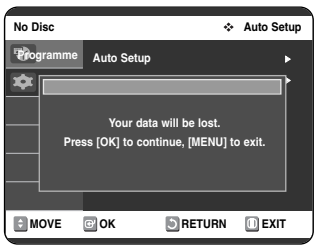
3 Press the ▲▼ buttons to select **Install**, then press the **OK** or ► button.



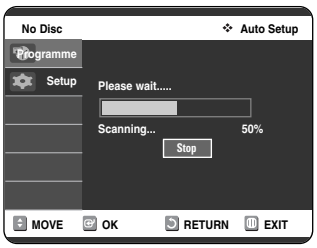
4 Press the ▲▼ buttons to select **Auto Setup**, then press the **OK** or ► button.
The System Selection menu is displayed.
Press the ▲▼ buttons to select the system.



5 Press the **OK** button.
The message “Your data will be lost. Press [OK] to continue, [MENU] to exit.” is displayed.



6 Press the **OK** button to start the auto scanning.



- The first frequency band is scanned and the first station found is displayed and stored.
  And the DVD Recorder & VCR searches for the second station and so on.
- When the automatic scanning procedure has finished, the DVD Recorder & VCR switches automatically to programme 1.
- The number of stations automatically stored by the DVD Recorder & VCR depends on the number of stations that it has found.

7 If you wish to cancel the auto scanning before the end, press the **OK** button.

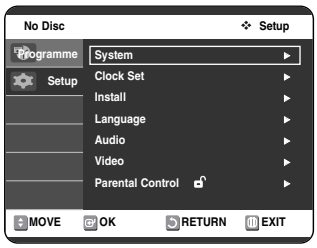
- Once the auto scanning procedure has finished, some stations may have been stored more than once; select the stations with the best reception and delete the ones no longer required.

Manual Setup

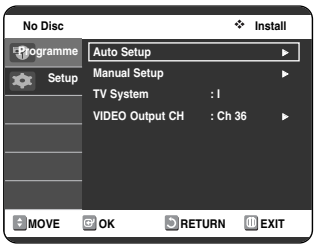
If you have already set then automatically, you do not need to preset the stations manually.

1 With the unit in Stop mode/No Disc mode, press the **MENU** button.

2 Press the ▲▼ buttons to select **Setup**, then press the **OK** or ► button.

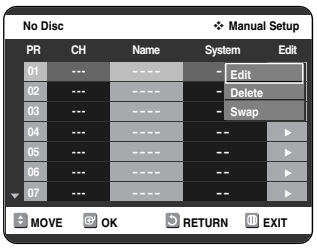


3 Press the ▲▼ buttons to select **Install**, then press the **OK** or ► button.

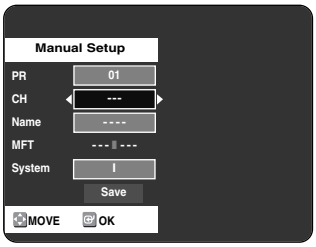


4 Press the ▲▼ buttons to select **Manual Setup**, then press the **OK** or ► button.

5 Press the ▲▼ buttons to select the desired PR number, then press the **OK** or ► button.



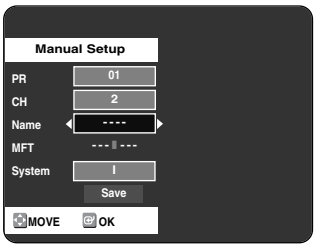
6 Press the ▲▼ buttons to select **Edit**, then press the **OK** or ► button. **Manual Setup** menu is displayed.



7 Press the ◄► buttons to start scanning the channels. The frequency band is scanned and the first station found is displayed.

8 Press the ▲▼ buttons to select **Name**.
The station name is set automatically from the broadcast signal.

9 To change the programme's name, press the ► button.



10

To...	Then....
Select a Character	Press the ▲▼ buttons until the required name character is displayed (letters, numbers or " - " character)
Move to the next or previous character	Press the ◄► buttons respectively.

Press the **OK** button to save the name.

11

If you..	Then....
Wish to store the station displayed	• Press the ▲▼ buttons to select MFT. • Press the ◄► buttons to adjust the picture, if necessary. • Select Save to store the station.
Do not wish to store the station displayed	• Press the ▲▼ buttons to select CH. • Press the ◄► buttons to go on scanning the frequency band and display the next station.

12 Press the ▲▼ buttons to select **Save**, then press the **OK** button to confirm manual setting.
- Repeat this procedure from step 5 onwards, until all the required stations have been stored.

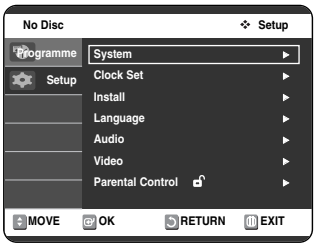
13 Press the **MENU** button to exit the menu.

Clearing a Preset Station

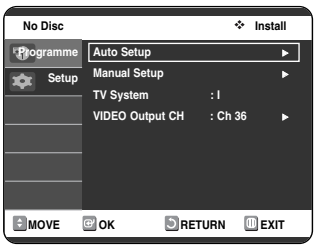
If you have stored a TV station:
- That you do not require
- At the wrong programme position you can cancel it.

1 With the unit in Stop mode/No Disc mode, press the **MENU** button.

2 Press the ▲▼ buttons to select **Setup**, then press the **OK** or ► button.

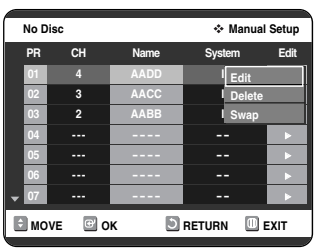


3 Press the ▲▼ buttons to select **Install**, then press the **OK** or ► button.



4 Press the ▲▼ buttons to select **Manual Setup**, then press the **OK** or ► button.

5 Press the ▲▼ buttons to select the desired PR number, then press the **OK** or ► button.



6 Press the ▲▼ buttons to select **Delete**, then press the **OK** or ► button.

7 Press the ◄ ► buttons to select **Yes**, then press the **OK** button.

8 Repeat the same procedure from Step 5 onwards until all the required stations have been cleared.

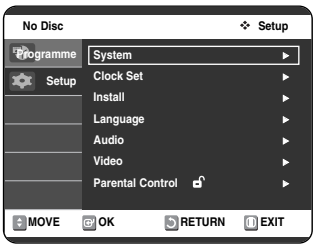
9 Press the **MENU** button to exit the menu.

Changing the Preset Manual Setup Table

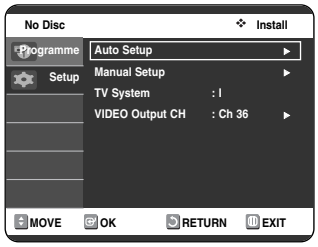
You can rearrange the Manual Setup Table and give different programme numbers to the manual setup listed according to your own preferences.

1 With the unit in Stop mode/No Disc mode, press the **MENU** button.

2 Press the ▲▼ buttons to select **Setup**, then press the **OK** or ► button.

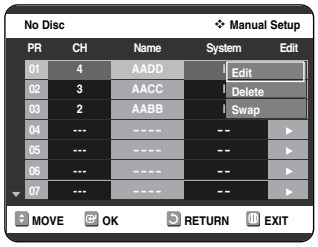


3 Press the ▲▼ buttons to select **Install**, then press the **OK** or ► button.



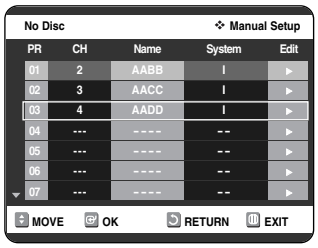
4 Press the ▲▼ buttons to select **Manual Setup**, then press the **OK** or ► button.

5 Press the ▲▼ buttons to select the desired PR number, then press the **OK** or ► button.



6 Press the ▲▼ buttons to select **Swap**.
To change the programme number assigned to a station press the **OK** button on the remote control.
• For example, to move a TV station in programme 1 to programme 3.

7 Press the ▲▼ buttons to select required position, then press the **OK** button again to swap the position.



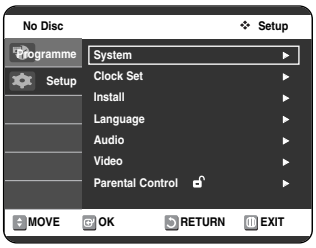
8 Press the **MENU** button to exit the menu.

Selecting the RF OUT Sound Mode (B/G-D/K, I)

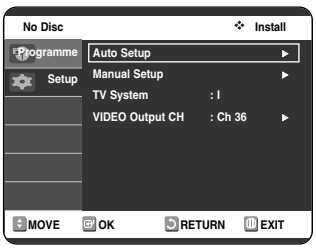
You can choose the sound mode (B/G-D/K, I) according to the TV set connected to your VCR.

1 With the unit in Stop mode/No Disc mode, press the **MENU** button.

2 Press the ▲▼ buttons to select **Setup**, then press the **OK** or ► button.



3 Press the ▲▼ buttons to select **Install**, then press the **OK** or ► button.



4 Press the ▲ or ▼ button to select **TV System**, then press the **OK** or ► button.

5 Press the ▲ or ▼ button to select **G**, **I**, or K then press the **OK** or ► button.

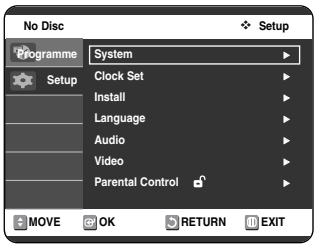
6 Press the **MENU** button to exit the menu.

VIDEO Output CH

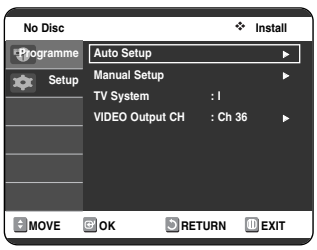
Your DVD Recorder & VCR output channel may need to be changed if the pictures suffer from interference or if your TV cannot find the pictures.

1 With the unit in Stop mode/No Disc mode, press the **MENU** button.

2 Press the ▲▼ buttons to select **Setup**, then press the **OK** or ► button.

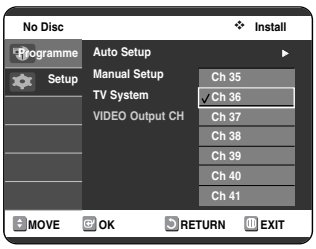


3 Press the ▲▼ buttons to select **Install**, then press the **OK** or ► button.



4 Press the ▲▼ buttons to select **VIDEO Output CH**, then press the **OK** or ► button.

5 Press the ▲▼ buttons to select the desired VIDEO output channel, then press the **OK** or ► button.

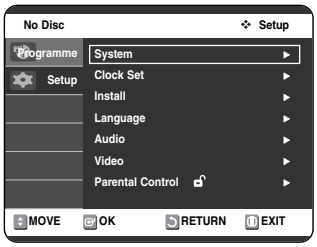


Setting Up the Language Options

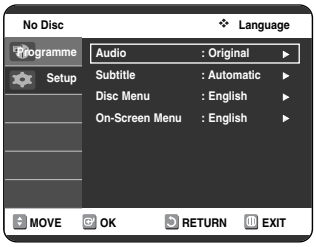
If you set audio, subtitle, disc menu and on-screen menu language in advance, they will come up automatically every time you watch a movie.
If the selected language is not recorded on the disc, the original pre-recorded language is selected.

1 With the unit in Stop mode/No Disc mode, press the **MENU** button.

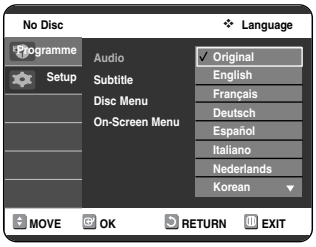
2 Press the ▲▼ buttons to select **Setup**, then press the **OK** or ► button.



3 Press the ▲▼ buttons to select **Language**, then press the **OK** or ► button.
Language setup menu will be displayed.



4 Press the ▲▼ buttons to select the desired language option, press the **OK** or ► button.



- **Audio** : For the disc audio language.
- **Subtitle** : For the disc subtitles.
- **Disc Menu**: For the disc menu contained on the disc.
- **On-Screen Menu**: For the on-screen menu of your DVD Recorder & VCR.

5 Press the ▲▼ buttons to select the desired language, then press the **OK** or ► button.

Note

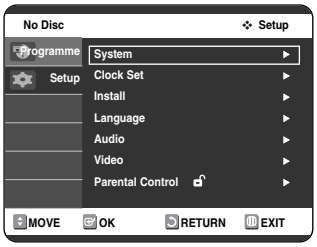
- Press the **RETURN** or ◄ button to return to the previous menu. Press the **MENU** button to exit the menu.
- The selected language will only appear if it is supported on the disc.

Setting Up the Audio Options

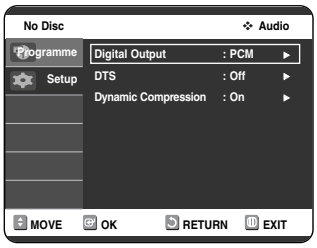
Allows you to setup the audio device and sound status settings depending on the audio system in use.

1 With the unit in Stop mode/No Disc mode, press the **MENU** button.

2 Press the ▲▼ buttons to select **Setup**, then press the **OK** or ► button.



3 Press the ▲▼ buttons to select **Audio**, then press the **OK** or ► button.
Audio setup menu will be displayed.



4 Press the ▲▼ buttons to select the desired audio option, then press the **OK** or ► button.

5 Press the ▲▼ buttons to select the desired item, then press the **OK** or ► button.

Note

■ Press the **RETURN** or ◄ button to return to the previous menu. Press the **MENU** button to exit the menu.

Digital Output

- **PCM** : Converts to PCM (2CH) 48kHz audio. Select PCM when using the Analog Audio Outputs.
- **Bitstream** : Converts to Dolby Digital Bitstream (5.1CH). Select Bitstream when using the Digital Audio Output.

Note

■ Be sure to select the correct Digital Output or no audio will be heard.

DTS

- **Off** : Doesn't output digital signal.
- **On** : Outputs DTS Bitstream via digital output only. Select DTS when connecting to a DTS Decoder.

Note

■ When DTS soundtrack is played, sound is not output from Analog Audio Output.

Dynamic Compression

This is only active when a Dolby Digital signal is detected.

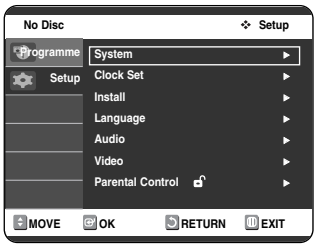
- **On** : When Movie soundtracks are played at low volume or from smaller speakers, the system can apply appropriate compression to make low-level content more intelligible and prevent dramatic passages from getting too loud.
- **Off** : You can enjoy the movie with the standard Dynamic Range.

Setting Up the Display (Video) Options

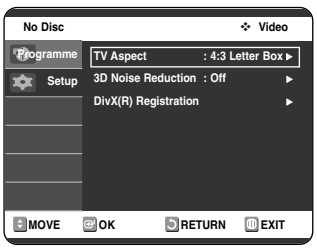
This function allows you to setup the TV screen settings.

1 With the unit in Stop mode/No Disc mode, press the **MENU** button.

2 Press the ▲▼ buttons to select **Setup**, then press the **OK** or ► button.



3 Press the ▲▼ buttons to select **Video**, then press the **OK** or ► button.
Video option menu will be displayed.



4 Press the ▲▼ buttons to select the desired video option, then press the **OK** or ► button.

5 Press the ▲▼ buttons to select the desired item, then press the **OK** or ► button.

Note

■ Press the **RETURN** or ◄ button to return to the previous menu. Press the **MENU** button to exit the menu.

TV Aspect

Depending on the type of television you have, you may want to adjust the screen setting. (aspect ratio)

- **4:3 Letter Box** : Select when you want to see the total 16:9 ratio screen DVD supplies, even though you have a TV with a 4:3 ratio screen. Black bars will appear at the top and bottom of the screen.
- **4:3 Pan - Scan** : Select this for conventional size TV when you want to see the central portion of the 16:9 screen. (Extreme left and right side of movie picture will be cut off.)
- **16:9 Wide** : You can view the full 16:9 picture on your widescreen TV.

3D Noise Reduction (motion adaptive noise reduction)

- **Off** : Normal
- **On** : Provides a cleaner picture through noise reduction (for recording).

Note

■ This function depends on disc type. It may not work for some disc types.

DivX(R) Registration

Please use the Registration code to register this DVD Recorder with the DivX(R) Video On Demand format. To learn more, visit www.divx.com/vod

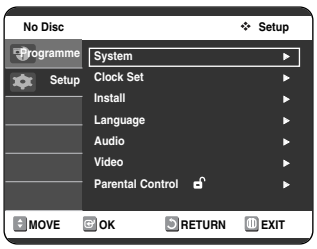
Setting Up the Parental Control

The Parental Control function works in conjunction with DVDs that have been assigned a rating - which helps you control the types of DVDs that your family watches. There are up to 8 rating levels on a disc.

DVD-VIDEO

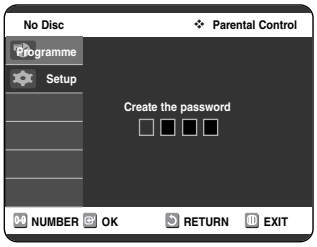
1 With the unit in Stop mode/No Disc mode, press the **MENU** button on the remote control.

2 Press the ▲▼ buttons to select **Setup**, then press the **OK** or ► button.



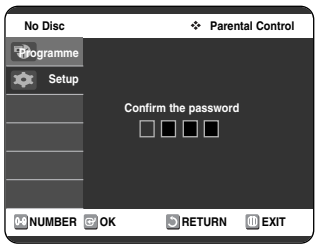
3 Press the ▲▼ buttons to select **Parental Control**, then press the **OK** or ► button.

- The 'Create the password' message will be displayed.

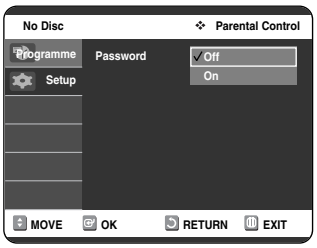


4 Enter the 4-digit password using the 0 to 9 buttons on the remote control.

- The 'Confirm the password' message will be displayed.



5 Enter your password again, and then press the **OK** or ► button.



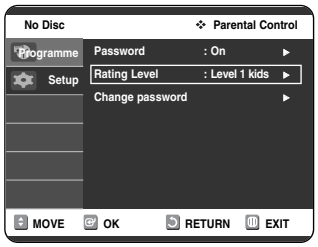
6 Press the ▲▼ buttons to select **On**, then press the **OK** or ► button.
The Parental Control screen appears.

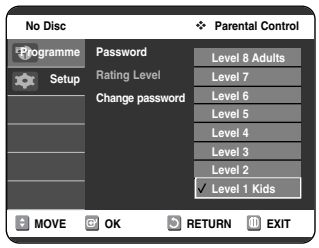
Note

- Press the **RETURN** or ◄ button to return to the previous menu. Press the **MENU** button to exit the menu.
- Refer to Troubleshooting if you forgot your password. (See page 88)

About the Rating Level

1 Press the ▲▼ buttons to select **Rating Level**, then press the **OK** or ► button.

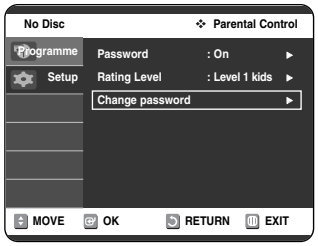


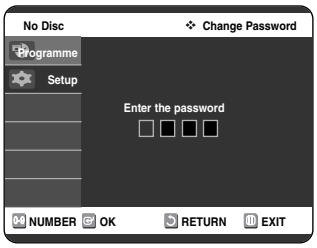


2 Press the ▲▼ buttons to select the rating level you want, then press the **OK** or ► button.
For example, if you select up to Level 6, discs that contain Level 7, 8 will not play. A larger number indicates that the programme is intended for adult use only.

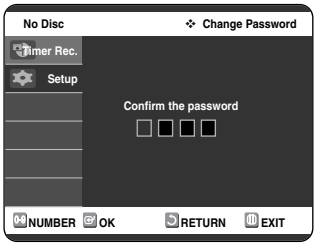
About the Change Level

1 Press the ▲▼ buttons to select **Change Password**, then press the **OK** or ► button.





2 Enter the 4-digit password using the 0 to 9 buttons on the remote control.
- The 'Confirm the password.' message will be displayed.



3 Enter your password again using the 0 to 9 buttons on the remote control.

Note

■ Press the **RETURN** or ◄ button to return to the previous menu. Press the **MENU** button to exit the menu.

VCR Setting

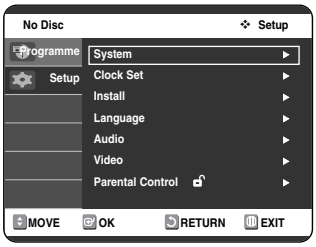
If you want your videotapes to play automatically when you insert them, turn on Auto Play.

Note

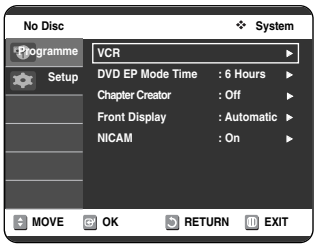
■ Only tapes that are missing the Record Safety Tab will play automatically when inserted.

1 With the unit in Stop mode/No Disc mode, press the **MENU** button.

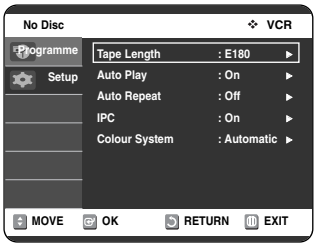
2 Press the ▲▼ buttons to select **Setup**, then press the **OK** or ► button.



3 Press the ▲▼ buttons to select **System**, then press the **OK** or ► button.



4 Press the ▲▼ buttons to select **VCR**, then press the **OK** or ► button.

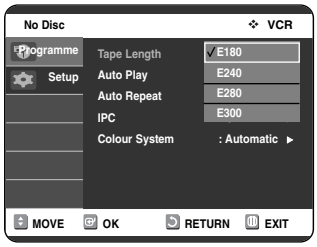


5 Press the ▲▼ buttons to select the desired VCR option, then press the **OK** or ► button.

6 Press the ▲▼ buttons to select the desired item, then press the **OK** or ► button.

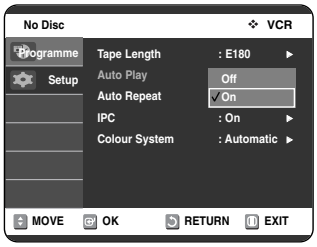
Tape Length

This information is usually printed on the tape box. The menu cycles through: E180, E240, E280, E300. Once the type of cassette is set, the VCR can display the amount of time remaining on the tape when you press the **INFO.** button.



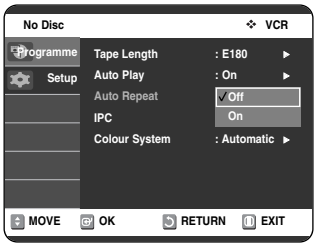
Auto Play

- **On** - The VCR will automatically begin playing a video tape when it is inserted, as long as the safety tab of the cassette has been removed.
- **Off** - Auto play is disabled.



Auto Repeat

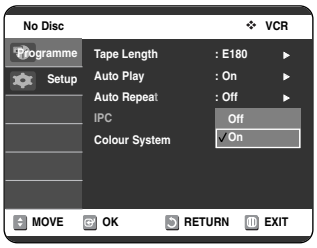
It sets the VCR to play a tape repeatedly (unless a tape control is activated : Stop, Fast Forward or Rewind).



IPC (Intelligent Picture Control)

The intelligent Picture Control Feature allows you to adjust the sharpness of the image automatically, according to your own preferences.

- **On** - the sharpness of the image is adjusted automatically.
- **Off** - To adjust the sharpness manually

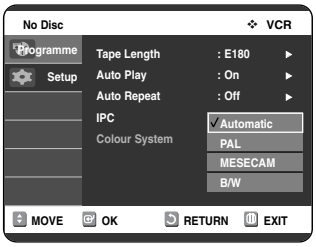


Colour System

Before recording or playing back a tape, you can select the required system standard.
Otherwise, the system automatically selects the reception standard when you select Automatic.

- When playing back a tape, the standard is automatically selected by the DVD Recorder & VCR.

- **Automatic** : When playing back a tape, the system standard is automatically selected by the DVD Recorder & VCR.
- **PAL** : PAL video system
- **B/W** : Black and White.

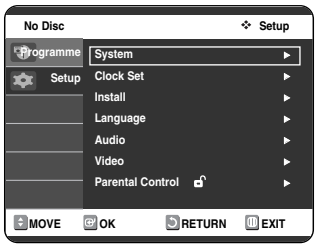


DVD EP Mode Time

You can set the EP (Extended Play) mode's time setting to 6 or 8hours.

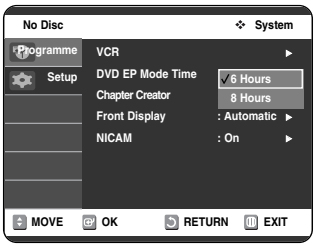
1 With the unit in Stop mode/No Disc mode, press the **MENU** button.

2 Press the ▲▼ buttons to select **Setup**, then press the **OK** or ► button.



3 Press the ▲▼ buttons to select **System**, then press the **OK** or ► button.

4 Press the ▲▼ buttons to select **DVD EP Mode Time**, then press the **OK** or ► button.



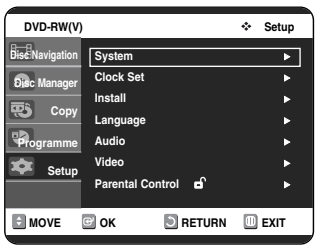
5 Press the ▲▼ buttons to select **6 Hours** or **8 Hours**, then press the **OK** or ► button.

Automatic Chapter Creator

This function only works with DVD-RW(V mode) and DVD-R discs.
A DVD-Video consists of 'Titles' and 'Chapters'.
When you record one program, it makes one Title.
If you use this function, the Title will be divided into Chapters.

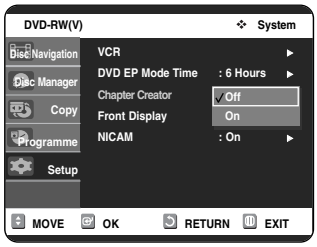
1 With the unit in Stop mode, press the **MENU** button.

2 Press the ▲▼ buttons to select **Setup**, then press the **OK** or ► button.



3 Press the ▲▼ buttons to select **System**, then press the **OK** or ► button.

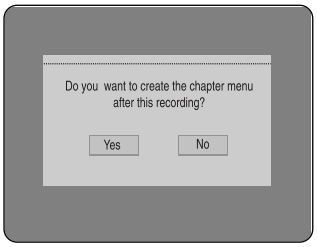
4 Press the ▲▼ buttons to select **Chapter Creator**, then press the **OK** or ► button.



5 Press the ▲▼ buttons to select **On**, then press the **OK** or ► button. Press the **MENU** button to exit the menu.

6 Set the recording speed by pressing the **REC SPEED** button on the remote (See page 56 for more information on recording speeds).

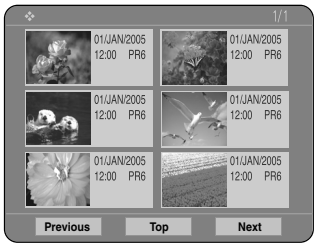
7 Press the **REC** button to start recording.
The message “Do you want to create the chapter menu after this recording?” is displayed.



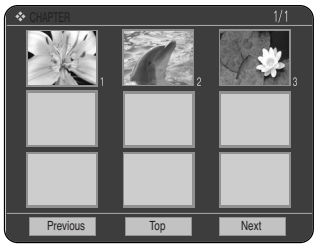
8 Press the ◄ ► buttons to select **Yes** and press the **OK** button and recording begins.
In XP and SP mode, you must record at least 5 minutes to create a chapter. In LP and EP mode, 15 minutes.

9 Press the **STOP** button to stop recording.

10 To display the created titles, finalise the disc (See page 84) and then press the **TITLE MENU** button. The title menu will be displayed.



11 To display the created chapters, select the desired Title and then press the **DISC MENU** button. The chapter menu for the selected Title will be displayed.



Note

- On DVD-RW discs, additional chapters and titles can be added to a finalised disc by unfinalising and recording again. On DVD-RW discs, once finalised, no additional chapters or titles can be recorded.

CAUTION

- The Automatic Chapter Creator function does not work during Timer Recording or when you turn the power off.
- The DVD-R disc cannot be unfinalised.

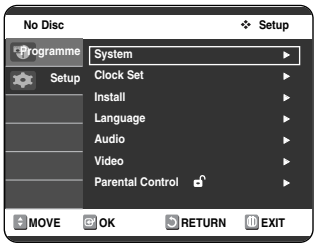
System Setup

Front Display

Adjust the brightness of the unit's front panel display.

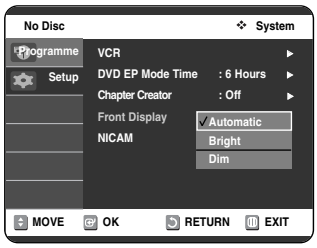
1 With the unit in Stop mode/No Disc mode, press the **MENU** button.

2 Press the ▲▼ buttons to select **Setup**, then press the **OK** or ► button.



3 Press the ▲▼ buttons to select **System**, then press the **OK** or ► button.

4 Press the ▲▼ buttons to select **Front Display**, then press the **OK** or ► button.



5 Press the ▲▼ buttons to select the desired item, then press the **OK** or ► button.

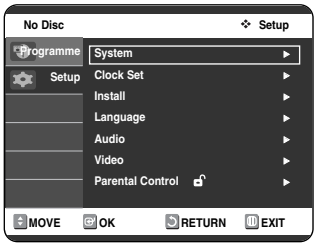
- **Automatic** : Front Panel Display will dim automatically during power off.
- **Bright** : Front Panel Display will be bright all the time.
- **Dim** : Front Panel Display will be dim all the time.

NICAM

NICAM programmes are divided into 3 types.
NICAM Stereo, NICAM Mono and Bilingual (transmission in another language).
NICAM programmes are always accompanied by a standard mono sound broadcast and you can select the desired sound.

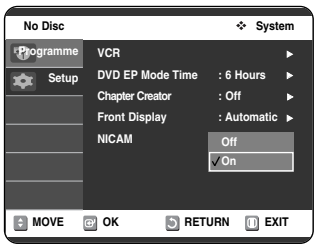
1 With the unit in Stop mode/No Disc mode, press the **MENU** button.

2 Press the ▲▼ buttons to select **Setup**, then press the **OK** or ► button.



3 Press the ▲▼ buttons to select **System**, then press the **OK** or ► button.

4 Press the ▲▼ buttons to select **NICAM**, then press the **OK** or ► button.



5 Press the ▲▼ buttons to select **Off** or **On**, then press the **OK** or ► button.

- **Off**: Only set at this position to record the standard mono sound during a NICAM broadcast if the stereo sound is distorted due to inferior reception conditions.
- **On**: NICAM mode

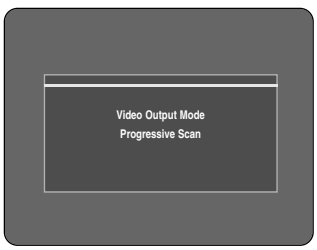
Setting up the Progressive scan

If your TV supports Progressive Scan, press the **P.SCAN** button on the front of the DVD Recorder & VCR to enjoy.

1 With the unit in Stop mode, press the **P.SCAN** button on the front of the DVD Recorder & VCR. The message “Press [Yes] to confirm Progressive scan mode. Otherwise, press [No].” will appear. Press the ◄ ► buttons to select **Yes**, and then press the **OK** button.

2 The message “Please, set your TV to Progressive input. To deactivate, press [STOP] key.” will appear. Press the **OK** button.

3 The message “Video Output Mode Progressive Scan” will appear.

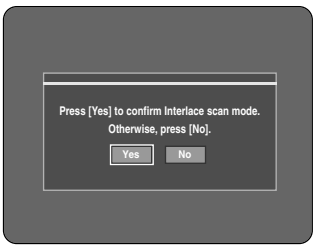


Note

- If the **P.SCAN** button on the DVD Recorder & VCR’s front panel is pressed during playback, the message “This function is possible only on stop mode.” appears on the screen.
- Progressive setting is only available when the DVD Recorder & VCR is in stop mode.

Canceling the Progressive scan

1 With the unit in Stop mode, press the **P.SCAN** button on the front of the DVD Recorder & VCR. The message “Press [Yes] to confirm Interlace scan mode. Otherwise, press [No].” will appear. Press the ◄ ► buttons to select **Yes**, and then press the **OK** button.



2 The message “Please, set your TV to Interlace input. To deactivate, press [STOP] key.” will appear. Press the **OK** button.

3 The message “Video Output Mode Interlace Scan” will appear.

Note

- Do not press the **P.SCAN** button if you are using a TV that does not support Progressive mode. Nothing will be displayed on the screen if pressed.
- If you press the **P.SCAN** button by mistake when your TV does not support Progressive mode, you need to release the Progressive mode. To release the Progressive mode, press the **P.SCAN** button on the front panel 3 times. The screen will recover after the **PSO** LED on the front panel display turns off.

Playback

This section introduces basic functions of playback by disc type.

Dolby Digital | DTS | Digital Audio

Stereo | PAL broadcast system in U.K, France, Germany, etc. | MP3

DivX

◆ *DVD Playback*

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Using the Disc Menu and Title Menu 40
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Changing the Camera Angle 45
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◆ *VCR Playback*

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Before Playing

Read the following information before playing a disc.

Region code (DVD-Video only)

Both the DVD Recorder & VCR and the discs are coded by region. These regional codes must match in order for the disc to play. If the codes do not match, the disc will not play. The Region Number for this DVD Recorder & VCR is described on the rear panel of the DVD Recorder & VCR.

Disc types that can be played

Disc Types	Disc Logo	Recorded content	Disc Shape	Max. Playing Time
DVD-VIDEO	DVD VIDEO	AUDIO + VIDEO	Single sided(5")	240
			Double sided(5")	480
			Single sided(3.5")	80
			Double sided(3.5")	160
VCD	COMPACT disc DIGITAL VIDEO	AUDIO + VIDEO	Single sided(5")	74
			Single sided(3.5")	20
AUDIO-CD	COMPACT disc DIGITAL AUDIO	AUDIO	Single sided(5")	74
			Single sided(3.5")	20
DVD-RAM	DVD RAM	AUDIO + VIDEO	Single-sided 5" (4.7GB)	1 (XP: Excellent Quality)
				2 (SP: Standard Quality)
				4 (LP: Long Playback)
				6 or 8 (EP:Extended)
			Double-sided 5" (9.4GB)	2 (XP: Excellent Quality)
				4 (SP: Standard Quality)
				8 (LP: Long Playback)
				12 or 16 (EP:Extended)
DVD-RW	DVD RW	AUDIO + VIDEO	5" (4.7GB)	1 (XP: Excellent Quality)
				2 (SP: Standard Quality)
				4 (LP: Long Playback)
				6 or 8 (EP:Extended)
DVD-R	DVD R	AUDIO + VIDEO	5" (4.7GB)	1 (XP: Excellent Quality)
				2 (SP: Standard Quality)
				4 (LP: Long Playback)
				6 or 8 (EP:Extended)
CD-RW/-R DVD-RAM/-RW/-R		JPEG MP3 MPEG4	-	-

Discs that cannot be played

- DVD-Video with a region number other than "2" or "ALL"
- 3.9 GB DVD-R Disc for Authoring.
- DVD-RAM not recorded following the Video Recording Standard
- Unfinalised DVD-R recorded on other equipment.
- DVD-ROM/DVD+RW/PD/MV-Disc, etc
- CVD/CD-ROM/CDV/CD-G/CD-I

Note

- This DVD Recorder & VCR can only operate with discs that are compatible with DVD-RAM Standard Version 2.0.
- Playback and/or recording may not work for some types of discs, or when specific operations, such as angle change and aspect ratio adjustment, are being performed. Information about the discs is written in detail on the box. Please refer to this if necessary
- Do not allow the disc to become dirty or scratched, fingerprints, dirt, dust, scratches or deposits of cigarette smoke on the recording surface may make it impossible to use the disc for recording.
- DVD-RAM/-RW/-R discs may not be able to play on some DVD players, depending on the player, disc and the condition of the recording.
- Discs with NTSC programmes recorded on them cannot be recorded using this DVD Recorder & VCR

Playing a Disc

1 Press the **OPEN/CLOSE** button.

2 Place a disc gently into the tray with the disc's label facing up.

3 Press **OPEN/CLOSE** button to close the disc tray.

- Your DVD Recorder & VCR closes the disc tray and plays the disc automatically.
- The recorder does not play discs automatically after the initial power on.
- When the recorder is powered on and a disc is in the tray, the unit will be activated and wait in stop status.
- Press the **PLAY** button to start playback.
- If you insert an MP3 Disc, your DVD Recorder & VCR will display the file list on the screen and start playing.
- If you insert a JPEG Disc, folders and files are displayed in the thumbnail picture.

4 Press the **STOP** button to stop playback.

Note

- When you stop playing back a disc, the DVD Recorder & VCR remembers where you stopped, When you press **PLAY** button again, it will pick up where you left off. (unless the disc is removed or the DVD Recorder & VCR is unplugged, or if you press the **STOP** button twice.)

CAUTION

- Do not move your DVD Recorder & VCR while playing, as this may cause damage to the disc.
- Make sure to press the **OPEN/CLOSE** button to open or close the disc tray.
- Do not push the disc tray while it is being opened or closed, as this may cause a product malfunction.
- Do not place foreign materials on or in the disc tray.
- Some functions may perform differently or be disabled depending on the disc type. If this occurs, refer to the instructions written on the disc case.
- Be especially careful that children's fingers are not caught between the disc tray and the tray chassis when it closes.
- After turning power on, it will take a few seconds until the DVD Recorder & VCR operates.

Using the Disc Menu and Title Menu

Some discs contain a dedicated menu system that allows you to select special functions for title, chapters, audio track, subtitles, film previews, information on characters, etc.

Disc Menu

DVD-VIDEO VCD

Press the **DISC MENU** button to enter the disc menu of the disc.

- Move to the setup menu related to playback operation.
- You can select audio language and subtitle etc. provided by the disc.
- When plaing a VCD2.0, you can choose Menu On or Menu Off by using the **DISC MENU** button.

Title Menu

DVD-VIDEO

Press the **TITLE MENU** button to move to the title menu of the disc.

- Use this button if the disc contains more than one title. Some discs may not support the title menu functionality.

For DVD-RAM/-RW/-R disc

DVD-RAM DVD-RW DVD-R

1 Press the **TITLE LIST** button to display title list.

Note

■ Title List : Title refers to a recorded video stream. Title List shows a list to help you select a title. Since the title list consists of the information on stream that is actually recorded, if one title is deleted, that title cannot be played again.

■ Play List : This refers to a unit of playback, which is made by selecting a desired scene in the entire Title List. When one playlist is played, only the scene selected by the user will play and then stop. Since only the information necessary for playing a desired scene is included in a playlist, even if that playlist is deleted, the original data will not be deleted.

Using the Search & Skip Functions

Searching through a Chapter or Track

DVD-VIDEO DVD-RAM DVD-RW DVD-R CD MPEG4 VCD

During the playback, press the **SEARCH** ◀◀ or ▶▶ button on the remote control. Each time you press the **SEARCH** button, the playback speed will change as follows.

DVD-VIDEO/DVD-RAM DVD-RW/DVD-R	▶▶Fast X 2 → ▶▶Fast X 4 → ▶▶Fast X 8 → ▶▶ Fast X 16 → ▶▶Fast X 32 → ▶▶Fast X 128
MPEG4 AUDIO CD (CD-DA)	→ ▶▶Fast X 2 → ▶▶Fast X 4 → ▶▶Fast X 8 →
VCD	▶▶Fast X 2 → ▶▶Fast X 4 → ▶▶Fast X 8

- You can scan the programme in reverse order. To return to normal speed playback, press the ▶II button.

Note

■ No sound is heard during Scan (Search) mode, except CDs (CD-DA).

Skipping Chapters or Tracks

DVD-VIDEO DVD-RAM DVD-RW DVD-R CD MPEG4

During the playback, press the I◀◀ or ▶▶I button on the remote control.

- **If you press the I◀◀ button**
  If you press the I◀◀ button, it moves to the beginning of the chapter, track or marker (DVD-RAM/-RW(VR mode)).
  Pressing the button once again within 3 seconds returns to the beginning of the previous chapter, track or marker (DVD-RAM/-RW(VR mode)).
- **If you press the ▶▶I button**
  If you press the ▶▶I button, it moves to the next chapter, track or marker (DVD-RAM/-RW(VR mode)).

Skipping ahead 30 seconds

DVD-VIDEO DVD-RAM DVD-RW DVD-R

In play mode, press **F.ADV/SKIP** button to skip ahead exactly 30 seconds.

Slow Motion Play/ Step Motion Play

Slow Motion Play

DVD-VIDEO DVD-RAM DVD-RW DVD-R MPEG4 VCD

During pause mode, press the **SEARCH** ◀◀ or ▶▶ button on the remote control for more than 1 second.

- Each time you press the ▶▶ button :
  I▶ Slow 1/8 → I▶ Slow 1/4 → I▶ Slow 1/2

- Each time you press the ◀◀ button :
  ◀I Slow 1/8 → ◀I Slow 1/4 → ◀I Slow 1/2

To return to normal speed playback, press the ▶II button.

Note

■ Slow motion play only in the forward direction on VCD and MPEG4 discs.

Step Motion Play

DVD-VIDEO DVD-RAM DVD-RW DVD-R MPEG4 VCD

During pause mode, press the **F.ADV/SKIP** button on the remote control.

- Each time the button is pressed, a new frame will appear.

To return to normal speed playback, press the ▶II button.

Note

■ No sound is heard during STEP or SLOW mode.

About ANYKEY

The ANYKEY functions allows you to easily search for a desired scene by accessing title, chapter, track and time. You can also change the subtitle and audio settings and set some features including Repeat, Angle and Zoom.

Moving to a scene directly using the ANYKEY

- If you want to move to a title, a chapter or a track to find a desired scene.

1 Press the **ANYKEY** button during playback.

2 Press the ▲▼ buttons to select **Title**, **Chapter** or **Track**.

3 Press the ◀▶ buttons or number (0~9) buttons to select the desired scene.
Then, press the **OK** button.

• If you want to move to a desired time to help you find a scene.

1 Press the **ANYKEY** button during playback.

2 Press the ▲▼ buttons to select **Time.**

3 Enter the time in the sequence of hours, minutes, and seconds using the number buttons, then press the **OK** button.

Note

- This may not work for some discs. When an audio CD (CD-DA) or an MP3 disc is inserted, according to a disc type, the information display may not appear.
- The Time Search function does not operate in some discs.
- To make the screen disappear, press the **ANYKEY** button again.
- When VCD2.0 is in Menu Off mode only, this function works. (see page 40)

Repeat Play

Playing Repeatedly (Repeat Playback)

DVD-VIDEO DVD-RAM DVD-RW DVD-R VCD

1 Press the **ANYKEY** button during playback.

2 Press the ▲▼ buttons to select **Repeat**.

3 Select repeat mode using ◄► button.
Press the **OK** button.
• To make the screen disappear, press the **ANYKEY** or **RETURN** button.

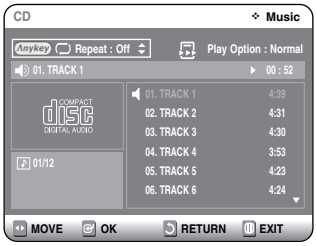
Note

- DVD-RAM/-RW(VR mode), unfinalised DVD-RW(V mode) and unfinalised DVD-R do not repeat a chapter.
- When VCD2.0 is in Menu Off mode only, this function works. (see page 40)

Playing Repeatedly (Repeat Playback)

CD MP3

1 Press the **ANYKEY** button during playback. Repeat is highlighted.



2 Press the ▲▼ buttons to select the **Track** or **Disc** you want to play repeatedly. Press the **OK** button. For MP3 discs, you can select **Track**, **Folder** or **Disc**.

- To return to normal playback -

3 Press the **CLEAR** button to return to normal playback.

Playing a Certain section Repeatedly (A-B Repeat Playback)

DVD-VIDEO DVD-RAM DVD-RW DVD-R VCD

1 Press the **ANYKEY** button during playback.

2 Press the ▲▼ buttons to select **Repeat**.

3 Press the ◀▶ button to select the **A-B**, then press the **OK** button.

4 Press the **OK** button at the point where you want the repeat play to start (A) and press it again at the point where you want the repeat play to stop (B). Repeat playback of the A-B section starts.

- To return to normal playback -

5 Press the **CLEAR** button to return to normal playback.

Note

- If you set point (B) before five seconds has lapsed, the prohibition mark (⊘) will appear.
- Audio CDs (CD-DA), MP3 discs and MPEG4 discs do not support the Repeat A-B function.
- When VCD2.0 is in Menu Off mode only, this function works. (See page 40)

Selecting the Subtitle & Audio Language

DVD-VIDEO DVD-RAM DVD-RW

(VR mode)

Selecting the SUBTITLE language

Subtitle languages may not work depending on the disc type. This is only available during playback.

Using the SUBTITLE button

1 Press the **SUBTITLE** button during playback.

2 Press the ▲▼ buttons to select the desired subtitle language.

- To make the screen disappear, then press the **CLEAR** or **RETURN** button.

Using the ANYKEY button

1 Press the **ANYKEY** button during playback.

2 Press the ▲▼ buttons to select **Subtitle**, then press the ◄► buttons to select the desired subtitle language.

Note

- The subtitle display may be different depending on the disc type.
- Some discs allow you to select the language for the disc menu only.

Selecting the Audio language

Audio languages may not work depending on the disc type. This is only available during playback.

1 Press the **ANYKEY** button during playback.

2 Press the ▲▼ buttons to select **Audio**, then press the ◄► buttons to select the desired audio language.

Note

- Audio languages may be different because they are disc-specific.
- Some discs allow you to select the audio language for the disc menu only.

Changing the Camera Angle

DVD-VIDEO

When a DVD Recorder & VCR contains multiple angles of a particular scene, you can select the Angle function.

Using the ANGLE button

If the disc contains multiple angles, the **ANGLE** appears on the screen.

1 Press the **ANGLE** button, then the ANGLE icon will appear with the current angle number and the number of angles available.

2 Press the ▲▼ buttons to select the desired angle.

ANYKEY Using the ANYKEY button

1 Press the **ANYKEY** button during playback.

2 Press the ▲▼ buttons to select **Angle**, then press the ◄► buttons or number (0~9) buttons to select the desired angle scene.

Note

- This function is disc-dependent, and may not work all DVDs.
- This function does not work when a DVD has not been recorded with a multi-camera angle system.

Zooming-In

DVD-VIDEO DVD-RAM DVD-RW DVD-R VCD

1 Press the **ANYKEY** button during playback.

2 Press the ▲▼ buttons to select **Zoom**, then press the **OK** button. (🔍) will be displayed.

3 Press ▲▼, ◄► buttons to move to the area you want to enlarge.

4 Press the **OK** button.
The screen will be enlarged to twice the normal size. The screen size will be enlarged to four times the normal size.

DVD-VIDEO/ DVD-RAM/DVD-RW/ DVD-R	normal size→X2→X4→X2→normal size
VCD	normal size → 2X → normal size

Note

- When recording is done in the EP mode, the Zoom function will not be supported. (except when the recording has been done in V mode)
- You can also select Zoom function directly using **ZOOM** button on the remote control.
- When VCD2.0 is in Menu Off mode only, this function works. (see page 40)

Using the Bookmarks

DVD-VIDEO DVD-RW DVD-R VCD

(V mode)

Set marks at scenes you want to see again so that you can start playback from the marked position.

1 Press the **MARKER** button during playback.

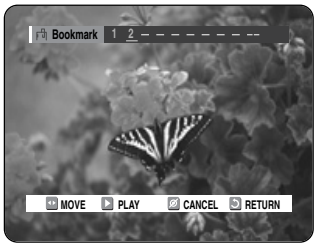
2 Press the **OK** button when the desired scene appears.

- The number 1 is displayed and the scene is memorized.

3 Press the ◄► button to move to the next position.

4 Press the **OK** button again when the desired scene appears.

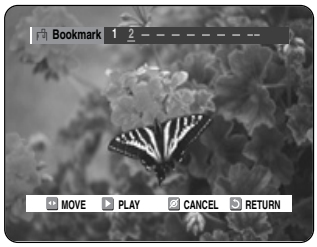
- The number 2 is displayed and the scene is memorized. Repeat above to bookmark other positions. You can bookmark up to 10 scenes.



Playing back a Bookmark

1 Press the **MARKER** button.

2 Press the ◄► buttons to select a bookmarked scene.

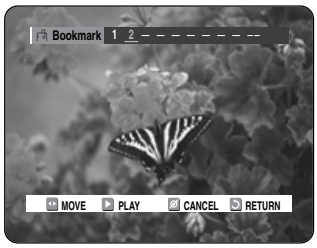


3 Press the **OK** or **►II** button to start playing from the selected scene.

Clearing a Bookmark

1 Press the **MARKER** button.

2 Press the ◄► buttons to select a bookmarked scene.



3 Press the **CLEAR** button to delete the selected bookmark.

Note

- When VCD2.0 is in Menu Off mode only, this function works. (See page 40)

Using the Markers

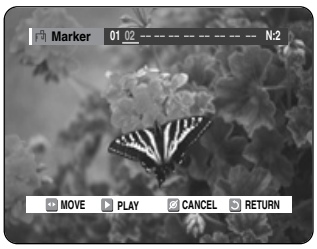
DVD-RAM DVD-RW
(VR mode)

1 Press the **MARKER** button during playback.

2 Press the **OK** button when the desired scene appears.
- The number 01 is displayed and the scene is memorized.

3 Press the ◄► button to move to the next position.

4 Press the **OK** button again when the desired scene appears.

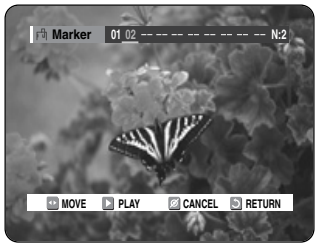


- The number 02 is displayed and the scene is memorized.
- DVD-RAM or DVD-RW(VR Mode) discs have the Marker function instead of the Bookmark function. The Marker function allows you to mark up to 99 scenes. Since the scenes may be displayed as many different pages, numbering is necessary. If a disc in use is encoded with disc Protect, Markers cannot be set or delete. Only playback is available.

Playing back a Marker

1 Press the **MARKER** button during playback.

2 Press the ◄► buttons to select a marked scene.



3 Press the **OK** or **►II** button to start playing from the selected scene.
- If you press the **NEXT SKIP** (**►►I**) button or the **PREVIOUS SKIP** (**I◄◄**) button in marker mode, When the next or current marked point plays for shorter than three seconds, playback starts from the previous marked point.

Clearing a Marker

1 Press the **MARKER** button during playback.

2 Press the ◄► buttons to select a marked scene. Press the **CLEAR** button to delete the selected mark.

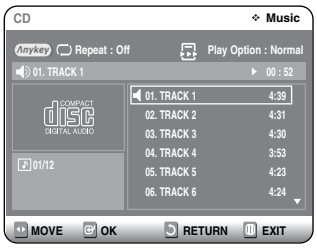
- When a marker is cleared while DVD-RAM/ -RW(VR mode) is playing, marker numbers will change. For example, if the 7th marker is cleared after ten markers are registered, the marker numbers after the eighth will automatically move ahead by one and the 8th marker becomes the 7th.

Playing back an Audio CD (CD-DA)

Each disc has a variety of menu functions available.

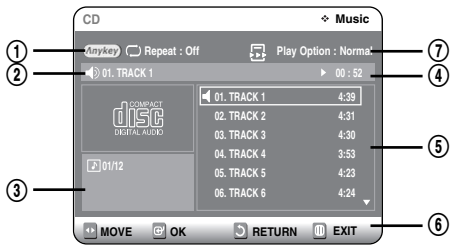
Playing back an Audio CD (CD-DA)

1 Insert an audio CD (CD-DA) into the disc tray.
- The audio CD menu appears and the tracks (songs) are played automatically.



2 Press the ▲▼ buttons to select the track (song) to start playback from, and then press the **OK** button.
- You can also select the track (song) by pressing the number buttons on the remote.

Audio CD (CD-DA) Screen Elements



① **Repeat mode**: Repeat off/Repeat Track/Repeat Disc.

② **Current track (song)**: Displays the number of the track currently being played.

③ Displays the current play index and total track number.

④ This shows the operating state of a disc and a playback time corresponding to a portion that is currently played.

⑤ Displays the track list (song list) and the playing time of each track.

⑥ Button display.

⑦ **Play Option**: Normal, Random, Intro or Playlist

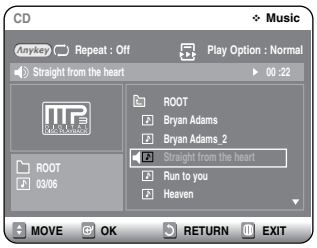
Buttons on the Remote Control used for CD playback

1. **▲▼, 0~9 :** Selects a track (song).
2. **▶ :** Plays the selected track (song).
3. **OK button :** Plays the selected track (song).
4. **▶▶I button :** Plays the next track.
5. **I◀◀ button :** Returns to the beginning of the current track when pressed during playback.
   If pressed again, your DVD recorder moves to and plays the previous track.
   If you press this button within three seconds after playback starts, the previous track will be played.
   If you press this button after three seconds, the current track will be replayed from the beginning.
6. **Press the (◀◀ /▶▶) buttons :** Fast Play (▶▶X2, ▶▶X4, ▶▶X8)
7. **■ :** Stops a track (song).
8. **▶II :** Plays a track (song) or pauses playback.
9. **ANYKEY :** To select the top menu on screen display (Repeat or Play Option).

Playing back an MP3 Disc

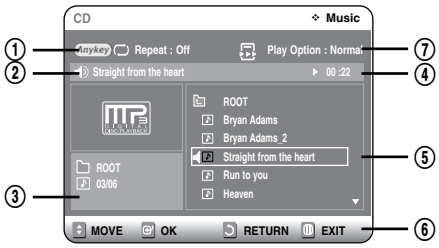
Playing back an MP3 Disc

1 Insert an MP3 CD into the disc tray.
- The MP3 menu is displayed and the tracks (songs) are played automatically.



2 Press the ▲▼ buttons to select the folder you want to hear, and then press the **OK** button.
- Press the ▲▼ buttons to select the track (song) you want to hear, and then press the **OK** button.
- You can also select the desired track (song) by pressing the number buttons on the remote control.

MP3 Screen Elements



① **Repeat mode :** Repeat off, Repeat Track, Repeat Folder or Repeat Disc
② **Current track (song) :** Displays the name of the track being played.
③ Displays the current folder and play index.
④ This shows the operating state of a disc and a playback time corresponding to a portion that is currently played.
⑤ Displays the information for the folder and its tracks.
⑥ Button display.
⑦ **Play Option :** Normal, Random, Intro or Playlist

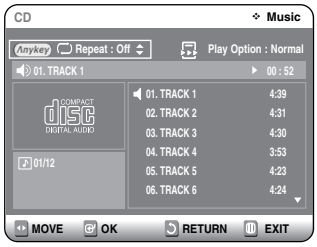
Buttons on the Remote Control used for MP3 playback

1. **▲▼, 0~9:** Selects a track (song).
2. **▶ :** Plays the selected track (song).
3. **OK button:** Plays the selected track (song) or displays the files in the selected folder.
4. **RETURN button:** Moves to the folder to which the current song belongs.
5. **▶▶I button:** Plays the next track.
6. **I◀◀ button:** Returns to the beginning of the current track when pressed during playback. If pressed again, your DVD recorder moves to and plays the previous track.
   If you press this button within three seconds after playback starts, the previous track will be played.
   If you press this button after three seconds, the current track will be replayed from the beginning.
7. **■ :** Stops a track (song).
8. **▶II :** Plays a track (song) or pauses playback.
9. **ANYKEY :** To select the top menu on screen display (Repeat or Play Option).

Play Option Mode

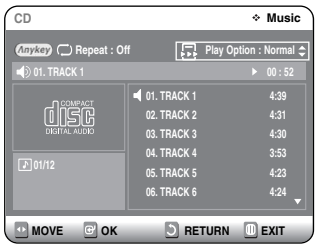
The Play Option can be used with an audio CD or MP3 in the Play or Stop mode.

1 Press the **ANYKEY** button during playback.
Repeat mode will be highlighted.



• During Stop, Play option will be highlighted.

2 Press the ◄ ► buttons to select **Play Option**.



3 Press the ▲▼ buttons to select a desired Play option, then press the **OK** button.

- **Normal:** Tracks on a disc are played in the order in which they were recorded on the disc.
- **Random:** The Random option plays a disc's tracks in random order. After a random list is generated and played completely, another random list is generated and played. Random Play is continued until the play option is changed.
- **Intro:** The first 10 seconds of each track will be played.If you want to listen to the music that you have selected, press the **OK** button or **►II** button. The play option will be changed to Normal Play. When Intro Play is completed, Normal Play is performed.
- **Playlist:** The Playlist playback option allows you to select the order in which you want tracks to play.

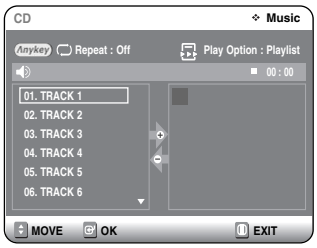
To Programme Tracks

You can register a maximum 30 tracks in the playlist.

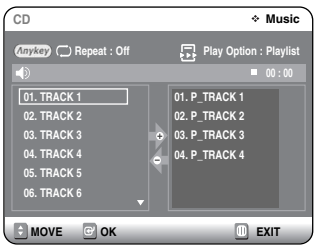
1 Press the **ANYKEY** button during playback.
Repeat mode will be highlighted.
• During Stop, Play option will be highlighted.

2 Press the ◄ ► buttons to select **Play Option**.

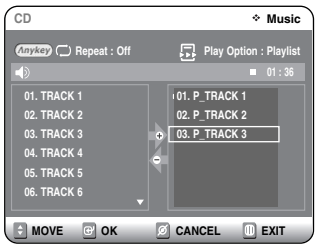
3 Press the ▲▼ buttons to select **Playlist**, then press the **OK** button.
Playlist screen is displayed.



4 Press the ▲▼ buttons to select tracks in the order in which you want them to play, then press the **OK** button.



5 If you playlisted a wrong track, press the ► button, then press the ▲▼ buttons to select wrong track. Press the **CLEAR** button. The wrong track will be removed.



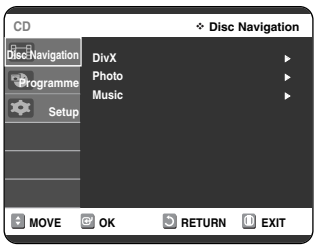
6 Press the **PLAY** button to playback the playlist.

Playing back a Picture Disc

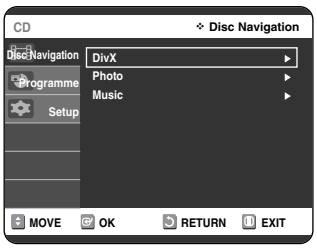
JPEG

There are two types of Picture CD. One is a CD with only JPEG files. The other one is a CD with JPEG files and MP3 files. (mixed CD)

1 Insert a JPEG into the disc tray.

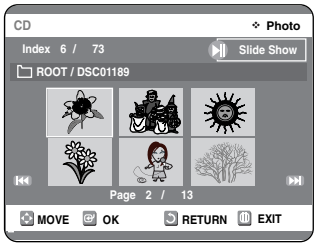


2 Press the ▲▼ buttons to select the **Disc Navigation**, and then press the **OK** or ► button.



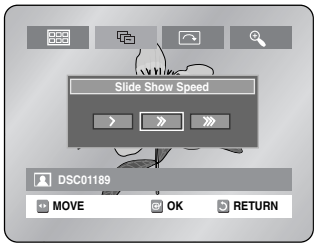
3 Press the ▲▼ buttons to select the **Photo**, and then press the **OK** or ► button.

4 Press the ▲▼◄► buttons to select a picture.

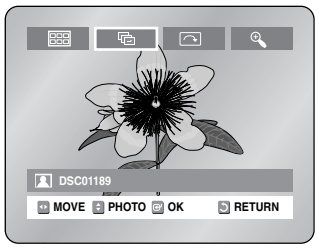


- To see the next 6 pictures, press the ►►I button.
- To see the previous 6 pictures, press the I◄◄ button.

5-1 If you press the ►II button, the Slide show screen will appear.
Press the ◄► buttons to set the slide show speed, then press the **OK** button.



5-2 Press the ◄► buttons to select a picture file in Album screen and then press the **OK** button.



: Returns to the Album screen.
: The unit enters slide show mode.
Before the slide show can begin, the picture interval (Slide show speed) must be set.
: Each time the **OK** button is pressed, the picture rotates 90 degrees clockwise.
: Each time the **OK** button is pressed, the picture is enlarged up to 4X (four times the normal size).
Normal → 2X → 4X → 2X → Normal

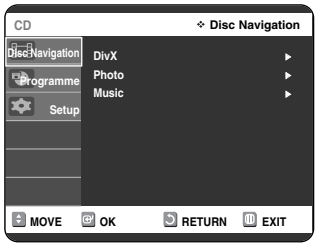
- Press the **ANYKEY** button to display menu bar.
- Press the **RETURN** button to clear the menu bar.

Playing back an MPEG4 Disc

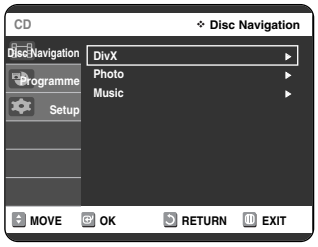
MPEG4 File is used to contain the audio and video data.
MPEG4 File with following extensions can be played.
- .AVI, .DIVX

1 Insert a MPEG4 Disc into the disc tray.

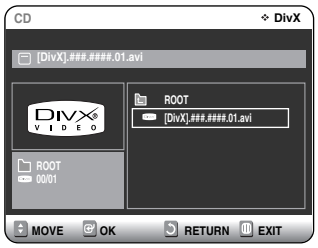
2 Press the ▲▼ buttons to select the **Disc Navigation**, and then press the **OK** or ► button.



3 Press the ▲▼ buttons to select the **DivX**, and then press the **OK** or ► button.



4 Press the ▲▼ buttons to select the avi file (DivX), then press the **OK** or ► button.



MPEG4 Function Description

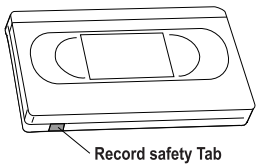
Function	Description
Skip (I◄◄ or ►►I)	During play, press the I◄◄ or ►►I button, it moves forward or backward 5 minutes.
Search (◄◄ or ►►)	During play, press the **SEARCH** (◄◄ or ►►) button and press again to search at a faster speed. → 2X → 4X → 8X
Slow Motion Play	In still or step mode, press the **SEARCH (►►)** button on the remote control. → 1/8X → 1/4X → 1/2X
Step Motion Play	Press the **F.ADV/SKIP** button on the remote control in the still mode.

Note

- This unit can play the following video compression formats
  MPEG4 Codec format : DivX 3.11 DivX 4.x DivX 5.x DivX-Pro (without QPEL and GMC)
  Audio format : “MP3”, “MPEG”, “WMA”, “LPCM”, “AC3”
- Some MPEG4 files created on a personal computer may not be play back.
  That is why Codec Type, Version and Higher resolution over specification is not supported.
- Supported subtitle file formats: .smi, .srt, .sub, .psb, .txt, .ass (The subtitle file should have exactly the same name to corresponding MPEG4 file name)

Playing back a VHS Tape (VCR)

To play a standard VHS tape, just insert it into the VCR deck and press the **PLAY** button. You can turn on the Auto Play to enable the VCR deck to play automatically when you insert a videotape that is missing the Record Safety Tab.



1 Insert a standard VHS tape into the VCR deck.

- When a videotape is inserted, power will turn on automatically.

2 Press the ►II (**PLAY/PAUSE**) button on the remote control or on the front panel of the unit. The videotape will begin to play automatically if the Record Safety Tab is removed and Auto Play is turned on.

3 Press the ■ (**STOP**) button on the remote control or on the front panel of the unit.

Tracking

The Tracking adjustment removes the white lines that sometimes appear during playback because of slight differences in recording decks. The **PROG/TRK** (∧/∨) button will automatically align the recorded tracks with the playback heads to solve this problem.
You may also set tracking manually.

1 **Adjust Tracking Manually**
During playback, press the **PROG/TRK** (∧/∨) buttons to remove white lines from the picture.

Special VCR Playback Features

While a videotape is playing, you can enjoy a variety of special playback features, including Still, Frame Advance, Skip, Slow motion, and more.

Pause

In Play mode, press ►II (**PLAY/PAUSE**) button to still a single frame.

Frame Advance

In the pause mode, press **F.ADV/SKIP** button to advance to the next frame.

Fps/Rps

In Play mode, press Forward (►►) button or Rewind (◄◄) button to Fps/Rps at two speeds:

- Picture Search - Press and release repeatedly to advance the tape forward or backword at 2,3,5,7 times normal speed.
- Jet Search - Press and hold to advance the tape forward or backward at 7 times normal speed.

Skip

In Play mode, press **F.ADV/SKIP** button to cue ahead exactly 30 seconds. Press **F.ADV/SKIP** button repeatedly up to 4 times to cue ahead 2 minutes.

Slow motion

In pause mode, press ►► button for slow motion. Press the ►► button repeatedly to vary slow motion speed from 1/5 to 1/30 of normal playback. Press the **PLAY** button twice to resume normal viewing.

Variable Search System

Each time you record a cassette on this DVD Recorder & VCR, an **index** is automatically marked on the tape when recording starts.The Search function allows you to fast-forward or rewind to a specific index and start playback from that point. Depending on the direction selected, the indexes are numbered as follows

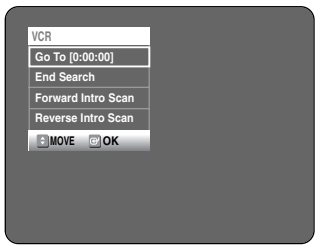
- This DVD Recorder & VCR uses a standard indexing system (VISS). As a result, it will recognize any indexes marked by other VCRs using the same system and vice versa.

Go To [0:00:00] Stop

Use this feature when you want to search for the 0:00:00 counter position on a cassette.

1 Press the **CLEAR** button at the point on the tape where you want to set the counter to 0:00:00.

2 While a cassette is stopped, press the **ANYKEY** button.

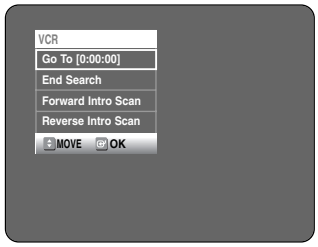


3 Press the ▲▼ buttons to select **Go To [0:00:00]**, then press the **OK** button.
The VCR will rewind or fast forward, searching for the 0:00:00 counter position, and then automatically stop at that position.

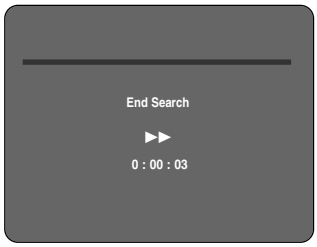
End Search

Use this feature when you want to search for a blank position to record a programme on a cassette

1 While a cassette is stopped, press the **ANYKEY** button.



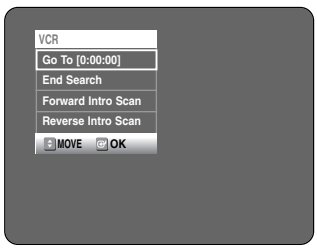
2 Press the ▲▼ buttons to select **End Search**, then press the **OK** button.
The VCR will fast forward, searching for a blank position, and then automatically stop at that position. If the VCR reaches the end of the tape during end search, the tape will be ejected.



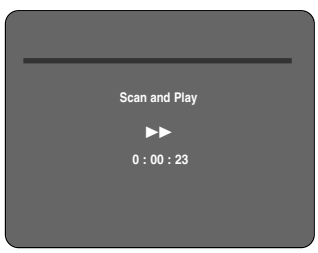
Forward/Reverse Intro Scan

Use scan and play when you don't know exactly where a programme is located on a cassette tape.

1 While a cassette is stopped, press the **ANYKEY** button.



2 Press the ▲▼ buttons to select **Forward Intro Scan** or **Reverse Intro Scan**, then press the **OK** button. When an Index mark is found the DVD Recorder & VCR will playback the tape for 5 seconds, after which it will continue searching for the next Index mark.



Recording

This section shows various DVD recording methods.

◆ *DVD Recording*

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Recording through a DV Input jack 58
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◆ *VCR Recording*

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Audio Dubbing Pre-recorded Cassette 65
Copy to DVD or VCR 66

Before Recording

This unit can record on various types of discs. Before recording, read the following instructions and select the disc type according to your preference.

Recordable discs

This recorder can record on the following discs.

DVD-RAM	DVD-RW	DVD-R
DVD RAM	DVD RW	DVD R

• DVD-RWs and DVD-RAMs are rewritable.
• DVD-Rs are non-rewritable.

Compatibility between Samsung and Other Company's Recorder.

Disc Types	Recording format	Recording Device	Finalising	Additional Recording in Samsung Recorder
DVD-RAM	VR Mode	Samsung	X	Recordable
		Other Company	X	Recordable
DVD-RW	VR Mode	Samsung	finalised	Not recordable
			not finalised	Recordable
		Other Company	finalised	Not recordable
			not finalised	Recordable
	V Mode	Samsung	finalised	Not recordable
			not finalised	Recordable
		Other Company	finalised	Not recordable
			not finalised	Not recordable
DVD-R	V Mode	Samsung	finalised	Not recordable
			not finalised	Recordable
		Other Company	finalised	Not recordable
			not finalised	Not recordable

Note

■ Finalise
- This closes the DVD-RW/-R so no additional recording can be done.

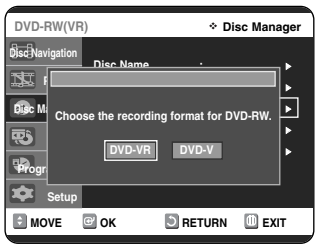
■ Unfinalise
- This allows additional recording on a DVD-RW disc originally recorded on the DVD Recorder & VCR
- A DVD-RW disc that has been recorded by DAO (Disc At Once) in a PC cannot be unfinalised.
- A DVD-RW disc that has been recorded in V mode of a different maker's recorder cannot be unfinalised.
- A DVD-R disc cannot be unfinalised.

Recording Formats

Since available functions differ depending on the disc type, select a disc that best fits your preferences.
When you insert an unused disc, the following message appears.
DVD-RAM: Use after formatting the disc.

DVD-RW: When an unused DVD-RW disc is first inserted, the message “Uninitialized Disc Do you want to intialize this disc?” will be displayed. If you select Yes, the disc will be formatted in VR mode.

If you want to change the mode, refer to Formatting a Disc on page 83.



DVD-R: Formatting DVD is unnecessary and only V mode Recording is supported.

DVD-RW(V mode)/-R

- Chapters will be created automatically when you finalise recording on DVD-RW/-R discs in V mode.
- Simple editing (erasing titles/changing title name).

DVD-RAM/-RW(VR mode)

- This mode involves multiple editing functions (such as deletion of the whole title, partial deletion of a title, etc.).
- Various editing options using a created Playlist.

Recording Mode

Select one of four recording modes by pressing the **REC SPEED** button repeatedly while the unit is in Stop mode for the desired recording time and picture quality.
In general, picture quality improves as the recording time decreases.
In AUTO Mode, the most suitable record mode is adjusted automatically, according to remaining time on the disc and length of the timer recording.
This function is selected only one mode in XP, SP, LP and EP modes and you can use this mode for timer recording.

Mode	Characteristic	Recording Times Data Rates
XP (high quality mode)	Select when the video quality is important.	Approx. 1 hours about 8 Mbps
SP (standard quality mode)	Select to record in standard quality.	Approx. 2 hours about 4 Mbps
LP (long recording mode)	Select when a long recording time is required.	Approx. 4 hours about 2 Mbps
EP (extended mode)	Select when a long recording time is required.	Approx. 6 hours/ about 1.2 Mbps Approx. 8 hours/ about 0.8 Mbps
AUTO	for timer recording only see page 60.	Approx 60 to 480 Min Approx 0.8 to 8Mbps

Unrecordable video

Pictures with copy protection cannot be recorded on this DVD Recorder & VCR.
When the DVD Recorder & VCR receives a copy guard signal while recording, recording stops and the following message appears on the screen.

Concerning Copy Control Signals

TV broadcasts that contain copy control signals may have one of the following three signal types, Copy-Free, Copy-Once and Copy-Never. If you want to record a copy-once type programme, use DVD-RW with CPRM in VR Mode and DVD-RAM.

	Copy-Free	Copy-Once	Copy-Never
DVD-RW(Ver.1.1)	O	-	-
DVD-RW(Ver.1.1) with CPRM			
VR mode	O	O*	-
V mode	O		-
DVD-R	O	-	-
DVD-RAM (Ver.2.0)	O	O*	-

Once **Copy Once** has been recorded, additional recording cannot be performed.

This * marked parts are compatible with CPRM.

- Content Protection for Recordable Media (CPRM)

CPRM is a mechanism that ties a recording to the media on which it is recorded. It is supported by some DVD recorders, but not by many DVD players.
Each blank recordable DVD has a unique 64-bit media ID etched in the BCA. When protected content is recorded onto the disc, it can be encrypted with a 56-bit C2 (Cryptomeria) cipher derived from the media ID. During playback, the ID is read from the BCA and used to generate a key to decrypt the contents of the disc.
If the contents of the disc are copied to other media, the ID will be absent or wrong and the data will not be decryptable.

Recording the current Programme you are watching

DVD-RAM DVD-RW DVD-R VHS

1. Check the antenna cable is connected.
2. Check the remaining time on the disc.

DVD-RAM/-RW discs should be formatted in advance before beginning recording. Most new discs are sold unformatted. Make sure to format your unformatted discs before recording.

1 Press the **OPEN/CLOSE** button and place a recordable disc on the disc tray.

2 Press the **OPEN/CLOSE** button to close the disc tray. Wait until **LOAD** disappears from the front panel display.

3 Press the **PROG/TRK** (∧/∨) buttons or number buttons to select the station you want to record.

4 Press the **REC SPEED** button repeatedly, to select the recording speed (quality).
- XP (High, approx. 1 hour) → SP (Standard, approx. 2 hours) → LP (Low, approx. 4 hours) → EP (Extended Play, approx. 6hours/8hours)

5 Press the **REC** button.
- "●" or "Record" is displayed on the screen and recording begins.

6 Press the **STOP** button to stop or finish a recording in progress.
- The message "Updating the information of disc. Please wait for a moment" is displayed.

Pausing / Resuming

- Press the **REC PAUSE** button to pause a recording in progress.
- Press the **REC PAUSE** button again during pause to resume recording.
- You can switch channels by pressing the **PROG/TRK** (∧/∨) buttons while recording pauses.

Note

- You can not change the recording mode and the programme while recording.
- Recording will stop automatically if there is no free space left for recording.
- Up to 99 titles can be recorded onto a disc.
- If the power interrupted due to power failure or other reasons, the title being recorded will not be saved onto the disc.
- Recording will stop automatically if a copy protected image is selected.
- Do not use DVD-R authoring discs with this unit.

Recording From External Devices

Follow these directions to record onto a disc or a tape from External Devices.

1 Connect the output jack of your External devices to the LINE IN 1 or LINE IN 2 on the front or rear of the DVD Recorder & VCR.

2 Power on your DVD Recorder & VCR and switch to input mode by pressing the **INPUT SEL.** button on the remote control. The front panel display changes on the following sequence

→ PR → LINE 1→ LINE 2 → DV

3 Press the **REC SPEED** button repeatedly to select the recording speed (quality).

→ SP → LP → EP → XP

4 When your DVD Recorder & VCR is in the stop mode, set the operation mode of your External Devices to play mode.

5 Press the **REC** button on your DVD Recorder & VCR when the image from which you want to start recording is displayed.

6 Press the **STOP** button on your DVD Recorder & VCR when the recording is finished.

Note

■ Also refer to the user manual for your External Devices when recording through input mode using Audio/Video cable.

Recording through a DV Input jack

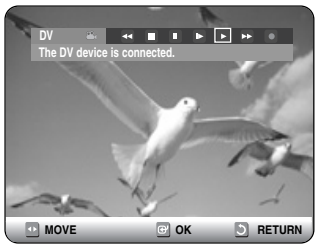
You may control the Camcorder using the IEEE1394 (DV) interface.
Follow these directions to record onto a disc or tape from a camcorder that has a DV output jack.

1 Connect the DV output jack of your camcorder to the DV input jack on the front of your DVD Recorder & VCR using a DV cable.

2 Press the **REC SPEED** button repeatedly to select the recording speed (quality).

→ SP → LP → EP → XP

3 Power on your DVD Recorder & VCR and switch to DV mode by pressing the **INPUT SEL.** button on the remote control.
If the input is set to DV, a playback/record menu that enables camcorder control appears on the top of the screen.



4 Select the Play icon on the upper part of the screen to playback the camcorder and find the starting position to copy.
You can press the **PLAY** button on the remote control to playback the camcorder.

5 To start recording, Press the ◄ ► buttons to select rec (●) icon in the top side of the screen, then press the **OK** button.
You can press the **REC** button of the remote control to start recording. To display playback related icons on the screen, press any direction button on the remote control.

6 Press the **STOP** button on your DVD Recorder & VCR when the recording is finished.

Note

■ Some camcorders may not work with your DVD Recorder & VCR even if they have a DV output jack.
■ Also refer to the user manual of your camcorder when recording through a DV jack.

Making a One Touch Recording (OTR)

DVD-RAM DVD-RW DVD-R VHS

One-Touch Recording (OTR) allows you to add recording time in 30-minute increments up to 9 hours by pressing the **REC** button.

1 Press the **PROG/TRK** (∧ / ∨) buttons or number buttons to select the station to record.
If you want to record through a connected external component, press the **INPUT SEL.** button to select an appropriate external input (PR, LINE 1, LINE 2 or DV).

2 Press the **REC** button.

3 While in Record mode, press the **REC** button again to activate One-Touch Recording (OTR).
- Record length 0:30 appears on the On-Screen Display and the DVD Recorder & VCR will record for exactly 30 minutes.

4 Continue pressing **REC** to add recording time in 30 minute increments up to 9 hours.
- The DVD Recorder & VCR stops recording automatically when the time has elapsed.

To stop recording

Press the **STOP** (■) button.
The message “Press **STOP** button once more to cancel Timer Record” is displayed.
Press the **STOP** (■) button again.
The message “Updating the Information of disc. Please wait for a moment” is displayed.

Note

- The timer counter decreases by the minute from 9:00 to 0:00, then the DVD Recorder & VCR stops recording.

Making a Timer Recording

DVD-RAM DVD-RW DVD-R VHS

1. Check the antenna cable is connected.
2. Check the remaining time of the disc.
3. Check the date and time are correct.

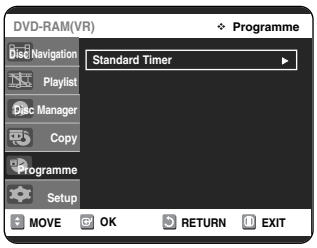
Make sure the Clock (Setup-Clock Set) must be set before you proceed with a timer recording.
(See page 22)

1 Press the **OPEN/CLOSE** button, and place a recordable disc on the disc tray.

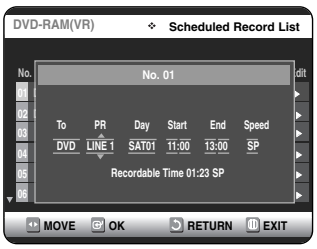
2 Press the **OPEN/CLOSE** button to close the disc tray.
Wait until **LOAD** disappears from the front panel display.

3 With the unit in Stop mode, press the **MENU** button.

4 Press the ▲▼ buttons to select **Programme**, then press the **OK** or ► button.



5 Press the **OK** or ► button twice.
- The Timer Recording screen is displayed.



Recording

6 Fill in the items using the ▲▼◄ ► buttons.
◄ ► : Moves to the previous/next item,
▲▼ : Sets a value.

- **To** : Select the media to record DVD or VCR.
- **PR** : The video input source (PR, LINE 1 or LINE 2), or the broadcasting channel you want to make a timer recording from.
- **Day** : Set the recording day.
  Daily, MO-SA, MO-FR, W-SA, ...W-SU, MON01, ...WED31
- **Start/End Time** : Start and end time of the timer recording.

• Recording Speed (DVD)

AUTO : Select when you want to set video quality automatically. In AUTO Mode, the most suitable record mode is adjusted automatically, according to remaining time on the disc and length of the timer recording. This function is selected only one mode in XP, SP, LP and EP modes and you can use this mode for timer recording.
XP (high quality) : Select when audio and video qualities are important. (Approx. 1 hour)
SP (standard quality) : Select to record in standard quality. (Approx. 2 hours)
LP (low quality) : Select when a long recording time is required. (Approx. 4 hours)
EP (extended mode) : Select when a longer recording time is required. (Approx.6 hours at 1.2Mbps or Approx. 8 hours at 0.8 Mbps.)

• Recording Speed (VCR)

AUTO : Select when you want to set video quality automatically. It depends on remaining time of VCR tape.
SP : Standard Play, for best picture quality.
LP : Long Play, for maximum recording time (3 times SP).

Note

■ When you are recording at EP mode on a DVD-RW(V mode)/-R disc, it may not record the full 6 or 8 hours because the unit uses the VBR (Variable Bit Rate) ENCODING system.
For example, if you record a programme with a lot of action, it uses a higher bit rate which in turn consumes more disc memory.

7 Press the **OK** button.

If the timer settings overlap
The programmes are recorded in order of priority. If timer recording is set for the first programme and then again for the second programme and both programmes overlap, the following message will appear on the screen: “This setting is identical with 1” The message shows that the first programme has priority. After recording of the first programme is complete, the second programme starts being recorded.

To exit without saving the current setting
Press the **MENU** or **RETURN** button.

To return to the previous menu
Press the **RETURN** button if you don’t want to set a timer recording.

8 Turn the power off to finish the timer recording.

- ◴ will blink if disc or tape is not inserted.
- ◴ will appear on the front panel. It means that a timer recording is registered.

Note

■ The timer recording time may differ from the set time depending on disc status and overall timer recording status (for example, recording times overlapping, or when the previous recording ends within 3 minutes before the start time of the next recording.)

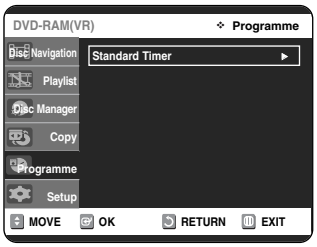
Editing the Scheduled Record List

DVD-RAM DVD-RW DVD-R VHS

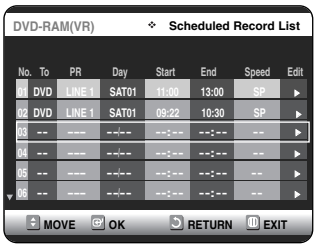
Follow these directions to edit the timer record list.

1 With the unit in Stop mode, press the **MENU** button.

2 Press the ▲▼ buttons to select **Programme**, then press the **OK** or ► button.

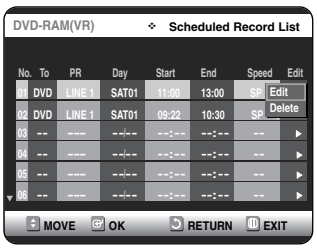


3 Press the **OK** or ► button.


DVD-RAM(VR)
Scheduled Record List
No. To PR Day Start End Speed Edit
01 DVD LINE 1 SAT01 11:00 13:00 SP
02 DVD LINE 1 SAT01 09:22 10:30 SP
03 -- ---- --/-- --:-- --:-- --
04 -- ---- --/-- --:-- --:-- --
05 -- ---- --/-- --:-- --:-- --
06 -- ---- --/-- --:-- --:-- --
MOVE
OK
RETURN
EXIT

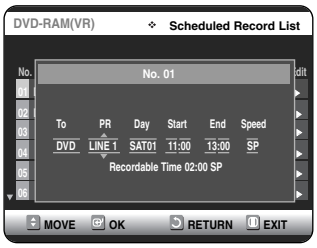
4 Press the ▲▼ buttons to select the number of the scheduled record list you want to edit, then press the **OK** or ► button.

• The Edit and Delete items are displayed.


DVD-RAM(VR)
Scheduled Record List
No. To PR Day Start End Speed Edit
01 DVD LINE 1 SAT01 11:00 13:00 SP
Edit
Delete
02 DVD LINE 1 SAT01 09:22 10:30 SP
03 -- ---- --/-- --:-- --:-- --
04 -- ---- --/-- --:-- --:-- --
05 -- ---- --/-- --:-- --:-- --
06 -- ---- --/-- --:-- --:-- --
MOVE
OK
RETURN
EXIT

5 Press the ▲▼ buttons to select **Edit**, then press the **OK** or ► button.

• The Timer Recording screen is displayed. Edit the items you want to modify. See the Timer Recording section for more information on Timer Recording Input items. (See page 60)



6 Press the **OK** button to confirm the edited setting.

7 Press the **MENU** button after finishing the operation. The menu screen will disappear.

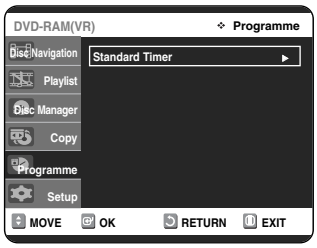
Deleting the Scheduled Record List

DVD-RAM DVD-RW DVD-R VHS

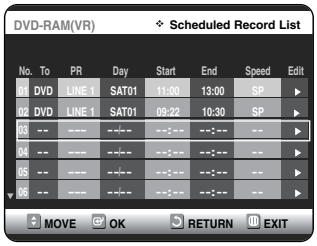
Follow these directions to delete a title from the timer record list.

1 With the unit in Stop mode, press the **MENU** button.

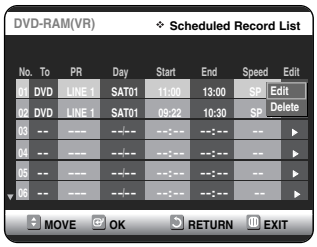
2 Press the ▲▼ buttons to select **Programme**, then press the **OK** or ► button.



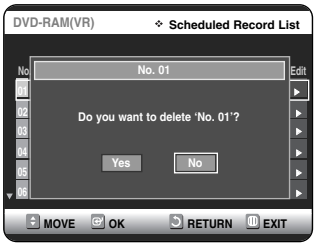
3 Press the **OK** or ► button.


DVD-RAM(VR)
Scheduled Record List
No. To PR Day Start End Speed Edit
01 DVD LINE 1 SAT01 11:00 13:00 SP
02 DVD LINE 1 SAT01 09:22 10:30 SP
03 -- ---- --/-- --:-- --:-- --
04 -- ---- --/-- --:-- --:-- --
05 -- ---- --/-- --:-- --:-- --
06 -- ---- --/-- --:-- --:-- --
MOVE
OK
RETURN
EXIT

4 Press the ▲▼ buttons to select the number of the scheduled record list you want to delete, and then press the **OK** button.
- The Edit and Delete items are displayed.


DVD-RAM(VR)
Scheduled Record List
No. To PR Day Start End Speed Edit
01 DVD LINE 1 SAT01 11:00 13:00 SP Edit
02 DVD LINE 1 SAT01 09:22 10:30 SP Delete
03 -- ---- --/-- --:-- --:-- --
04 -- ---- --/-- --:-- --:-- --
05 -- ---- --/-- --:-- --:-- --
06 -- ---- --/-- --:-- --:-- --
MOVE
OK
RETURN
EXIT

5 Press the ▲▼ buttons to select **Delete**, then press the **OK** or ► button.
- You will be prompted with the delete confirm message such as 'Do you want to delete 'No.01'?'.



6 Press the ◄► buttons to select **Yes**, then press the **OK** button.
- The selected title will be deleted from the list.

7 Press the **MENU** button after finishing the operation. The menu screen will disappear.

Note

- You can not delete programmes that are currently recording.

Basic VCR Recording

Before starting

1. Check TV channel and Antenna connections.
2. Check the remaining time on the tape.

You can record a TV show in progress by inserting a blank tape and pressing the ● (**REC**) button. You can even add time in 30-minute increments up to 9 hours by pressing the ● (**REC**) button repeatedly.

Note

■ Be sure your videotape has a Record Safety Tab. If the tab is missing, you can cover the opening with a small piece of tape.

CAUTION

■ Warning: Do not cover this opening unless you are sure you want to record over the tape.

1 Insert a blank VHS tape into the VCR deck.
• Make sure the tape is long enough to record the entire programme.

2 Press the 0–9 buttons or the **PROG/TRK** (∧/∨) buttons to select the desired channel.
Press the **INPUT SEL.** button to select PR, LINE 1, LINE 2 or DV if recording from an external device connected to the front or rear inputs, respectively.

3 Press the **REC SPEED** button on the remote control to set the Record Speed to one of the following options:
• **SP** – Standard Play, for best picture quality.
• **LP** – Long Play, for maximum recording time (3 times SP).

Note

■ The selected Record Speed will appear on the front panel display and on-screen display.

Maximum Recording Time - SP vs. LP

Tape Length	Recording Time (in SP)
E180	180 mins or 3 hours
E240	240 mins or 4 hours
E280	280 mins or 4 hours and 40 mins
E300	300 mins or 5 hours

Note

■ When you watch or record on the VCR during DVD Recording, some function buttons may not operate.
The message “This function is not available.” will be displayed.

4 Press the ● (**REC**) button on the remote control or front panel.
For options while recording is in progress, see “Special Recording Features”.

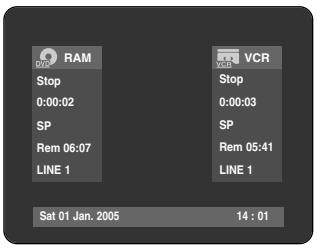
5 Press the **STOP** button to stop or finish a recording in progress.

Pausing / Resuming

• Press the **REC PAUSE** button to pause a recording in progress.
• Press the **REC PAUSE** button again during pause to resume recording.
• You can switch programme by pressing the **PROG/TRK** (∧/∨) buttons while recording pauses.

Check Remaining Time

1 Press **INFO.** button on the remote control. Following information will be displayed. (Current deck status, recording speed, remaining time, input channel, current time.)



Special Recording Features

While a recording is in progress, you can watch a different channel, watch a different media, or add recording time in 30-minute increments.

1 **Watch a different media during recording**

You can watch a DVD during VCR recording or watch a Video tape during DVD recording.

- During VCR recording, insert a DVD in the DVD deck. The output will automatically change to the DVD and start playback.
- During DVD recording, insert a Video tape in the VCR deck. The output will automatically change to the VCR and start playback. (Only if tape is missing the safety tab)

2 **Add Recording Time**

Refer to the One-Touch Recording (OTR). (See page 59)

3 **Recording DVD and VCR at the same time**

You can record DVD and VCR at the same time, but both modes must be set up to record separately.

- Press the **DVD/VCR** button to set the unit to DVD or VCR mode.
- Choose input mode (PR, LINE 1, LINE 2 or DV) for DVD or VCR.
- Choose REC SPEED mode for DVD or VCR.
- Press **REC** button for DVD or VCR.

Note

- When DVD Recorder & VCR is connected to your TV using S-Video or component video cable, the playback screen on the video tape will not display during DVD recording.
- You cannot record different channels at the same time.
- The DVD and VCR cannot start recording at the exact same time. You must set one mode to start recording, then the other.

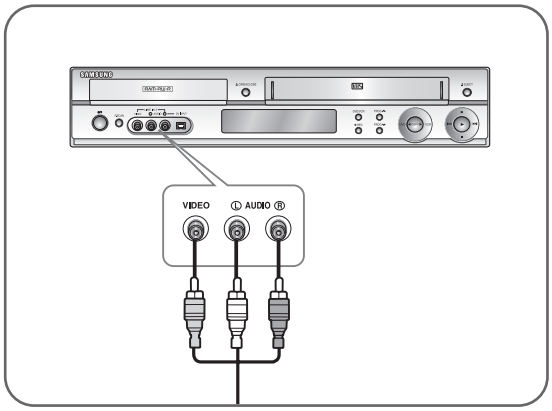
Audio Dubbing Pre-recorded Cassette

With the Audio Dubbing function, you erase the previously recorded sound and replace it with a new soundtrack from :
- A CD, DVD
- A microphone connected to a sound system
- A cassette player

Restriction:
Audio dubbing is applicable only to the longitudinal audio track (normal audio).

1 Connect an audio cable to the appropriate output on your sound system (cassette player for example).

2 Connect the other end of the audio cable to the audio input connectors (L, R) on the Front of your DVD Recorder & VCR (LINE IN 2).



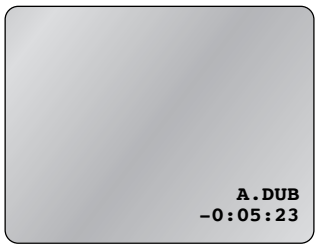
3 Insert the pre-recorded cassette on which the audio track is to be replaced, and press the ▶II button to start playback.

4 Search for the Audio dubbing (ending) point using the ▶▶ button and set the counter to 0:00:00 by pressing **CLEAR** button.

5 Search back slightly beyond the Audio Dub start point using the ◀◀ button.

6 Press the ▶II button.
Press the ▶II button one more time to make **STILL** mode.

7 Press **A.DUB** button on the remote control.



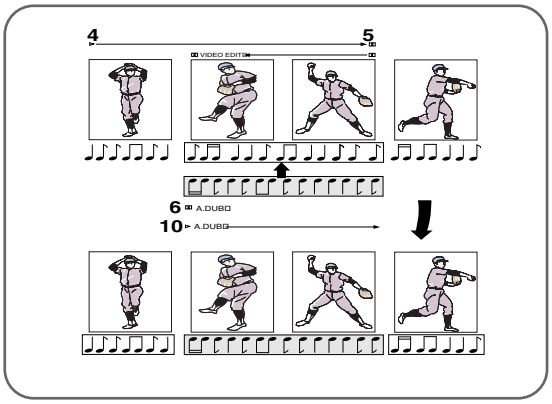
8 On the sound system, locate the point on the cassette at which you wish to start playback.
ex) The track that you wish to record on the cassette.

9 When you are ready:
- Start playback on the sound system
- Press the **REC** button on the remote control.
  The soundtrack is replaced on the prerecorded cassette.

10 The audio dubbing will finish when the counter reaches 0:00:00.

Note

■ The new sound will be recorded on the normal sound track of the tape, and the original sound will remain on the Hi-Fi sound track.
To hear the new sound and original sound mixed together, press the **AUDIO** button on the remote control until the MIX option is displayed.



Copy to DVD or VCR

DVD-VIDEO DVD-RAM DVD-RW DVD-R VCD MPEG4 ➡ VHS

You can copy from the DVD to VCR or VCR to DVD.
Check the remaining time on the tape and disc.

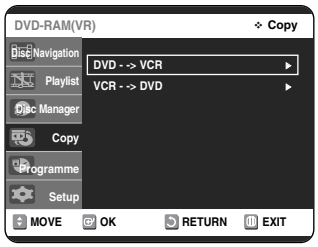
To copy from DVD to VCR

DVD-RAM DVD-RW

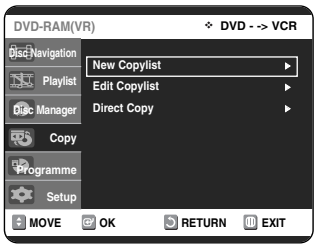
(VR mode)

1 With the unit in Stop mode, press the **MENU** button.

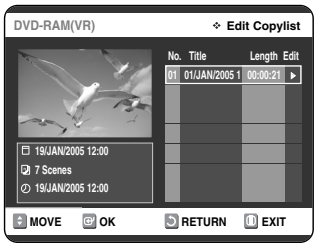
2 Press the ▲▼ buttons to select **Copy**, then press the **OK** or ► button.



3 Press the ▲▼ buttons to select **DVD --> VCR**, then press the **OK** or ► button.

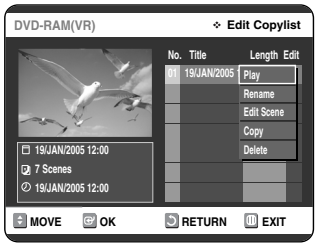


4 Press the ▲▼ buttons to select **Edit Copylist**, then press the **OK** or ► button.

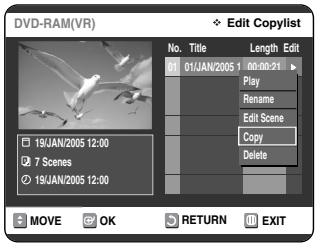


- To copy from “Edit Copylist”, you need to make a copylist in advance.
- Select “New Copylist” and create the new playlist. (See page 74)
- If you want to copy directly, choose “Direct Copy”.

5 Press the ▲▼ buttons to select desired copylist, then press the **OK** or ► button.



6 Press the ▲▼ buttons to select **Copy**, then press the **OK** or ► button.



Direct copy DVD to VCR

- Insert a DVD disc you want to copy.
- Insert a VHS tape.
- Press the VCR copy button on front panel or remote control. (TO VCR)
- To stop recording, press the **STOP** button.
- You can also copy from DivX to VCR when the desired DivX is played back or highlighted in the file list.
  If the DivX disc has various files, only the selected file will be played back.

Note

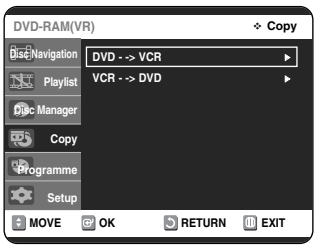
■ Copy function is not allowed in progressive scan mode.

To copy from VCR to DVD

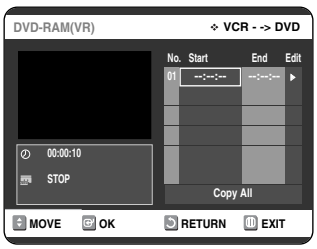
VHS → DVD-RAM DVD-RW DVD-R

1 With the unit in Stop mode, press the **MENU** button in stop mode.

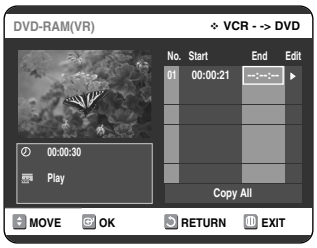
2 Press the ▲▼ buttons to select **Copy**, then press the **OK** or ► button.



3 Press the ▲▼ buttons to select **VCR --> DVD**, then press the **OK** or ► button.

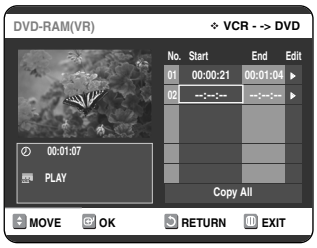


4 You can use the ►II, I◄◄ or ►►I , ◄◄ or ►► buttons to search for the Start position.
Press the **OK** button at the start point.

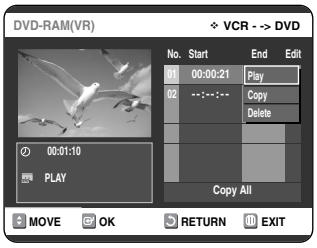


5 You can use the ►II, I◄◄ or ►►I , ◄◄ or ►► buttons to search for the end position.
Press the **OK** button at the end point.

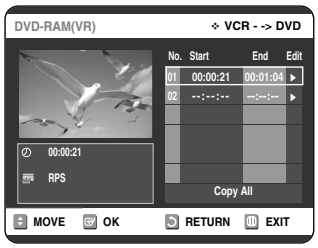
- A copylist will be generated.
  Repeat the above steps to create the copylist.
- In VCR mode, the copylist cannot be saved.



6 Press the ▲▼ buttons to select desired copylist, then press the **OK** or ► button.



7 Press the ▲▼ buttons to select **Copy**, then press the **OK** or ► button.



- The VCR will fast forward, searching for a start position and then automatically start a copy.
- It may not be match up with Start and END point exactly.
- If you want to copy all copylists, select **Copy All**.

Direct copy VCR to DVD

- Insert the VHS tape you want to copy.
- Insert Recordable DVD disc.
- Press DVD copy button on front panel or remote control. (TO DVD)
- To stop recording press the **STOP** button.

Editing

This section introduces basic functions of DVD editing and explains both edit functions for the recording on a disc and edit functions for the entire disc.

Playing the Title List *68*
Basic Editing (Title List) *70*
Advanced Editing (Playlist) *74*
Disc Manager *82*

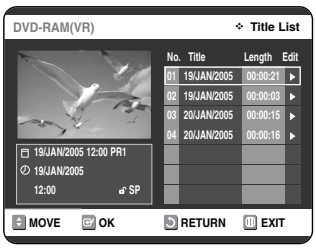
Playing the Title List

DVD-RAM DVD-RW DVD-R

Follow these instructions to play back a scene from the Title List.

Using the TITLE LIST button

1 Press the **TITLE LIST** button.
The **Title List** screen is displayed.

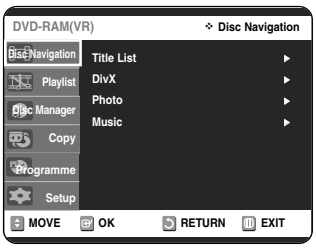


2 Press the ▲▼ buttons to select a title you want to play from Title List, and then press the **PLAY** button.
The selected title will be played back.

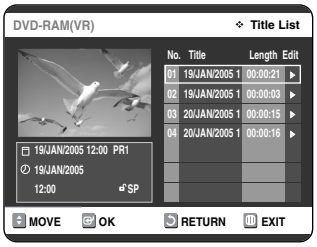
3 To stop title play, press the **STOP** button.
To return the title list screen, press the **TITLE LIST** button.

Using the MENU button

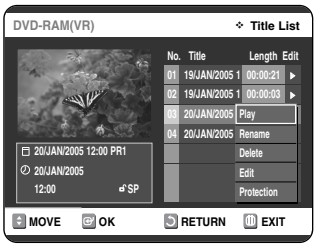
1 Press the **MENU** button.



2 Press the ▲▼ buttons to select **Disc Navigation**, then press the **OK** or ► button twice.
The **Title List** screen is displayed.



3 Press the ▲▼ buttons to select **Title**, then press the **OK** or ► button.
The Edit menu is displayed: Play, Rename, Delete, Edit, Protection (See pages 69~73)

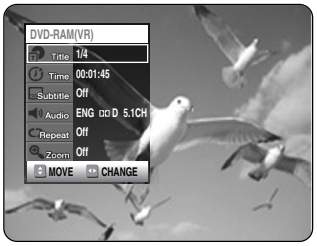


4 Press the ▲▼ buttons to select **Play** to play the title list, then press the **OK** button.
The selected title will be played back.

5 Press the **STOP** button to stop playing.
To return the title list screen, press the **TITLE LIST** button.

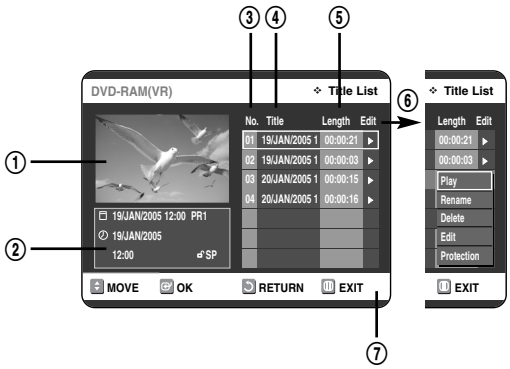
Note

- You can also play a recorded programme by pressing the **ANYKEY** button.



- Press the ▲▼ buttons to select **Title**.
- Press the ◄► buttons to select to play the title list, then press the **OK** button.

Title List Screen Elements



① Playback screen for recorded titles.
② Information window for the selected title: Title name, recording date, recording time, lock status, recording mode
③ Recorded title No.
④ Recorded title name
⑤ Recording Length (i.e., the playing time)
⑥ Edit menu
Play: Plays the selected title.
Rename: Renames the title of a selected title.
Delete: Deletes the selected title from the list.
Edit: Deletes a section of title.
Protection: Locks or unlocks the selected title.
⑦ Button display.

Note

- This may depend on the type of disc.
- DVD-RW(V mode)/-R has limited editing function.

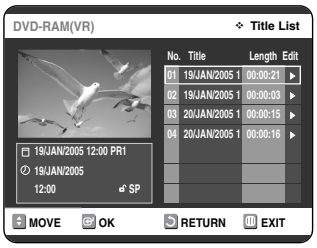
Basic Editing (Title List)

Renaming (Labeling) a Title

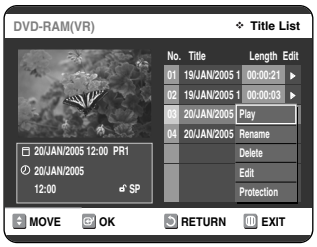
Follow these instructions to rename a title list, i.e., to edit the title of a recorded programme.

DVD-RAM DVD-RW DVD-R

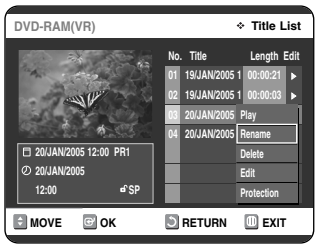
1 Press the **TITLE LIST** button.
The Title List screen is displayed.
Using the **MENU** button.
- Press the **MENU** button.
- Press the ▲▼ buttons to select **Disc Navigation**, then press the **OK** or ► button twice.

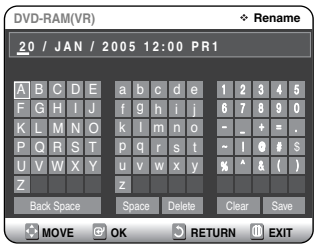


2 Press the ▲▼ buttons to select a title you want to rename from the **Title List**, then press the **OK** or ► button.

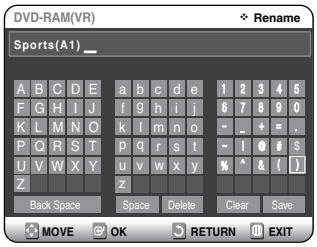


3 Press the ▲▼ buttons to select **Rename**, then press the **OK** or ► button.
The Rename screen is displayed.



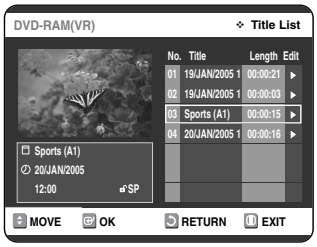

DVD-RAM(VR)
Rename
20 / JAN / 2005 12:00 PR1
A B C D E a b c d e 1 2 3 4 5
F G H I J f g h i j 6 7 8 9 0
K L M N O k l m n o - _ + = .
P Q R S T p q r s t ~ ! @ # $
U V W X Y u v w x y % ^ & ( )
Z z
Back Space Space Delete Clear Save
MOVE OK RETURN EXIT

4 Select the desired characters using the ▲▼◄► buttons, press the **OK** button.


DVD-RAM(VR)
Rename
Sports(A1) _
A B C D E a b c d e 1 2 3 4 5
F G H I J f g h i j 6 7 8 9 0
K L M N O k l m n o - _ + = .
P Q R S T p q r s t ~ ! @ # $
U V W X Y u v w x y % ^ & ( )
Z z
Back Space Space Delete Clear Save
MOVE OK RETURN EXIT

- **Back Space:** Moves the cursor one position backwards (Equivalent to the **CLEAR** button).
- **Space:** Enters a blank and moves the cursor one forward (to the right).
- **Delete:** Deletes the character at the cursor position.
- **Clear:** Deletes all the character inputs.
- **Save:** Registers the character inputs.

5 Press the ▲▼◄► buttons to select **Save**, and then press the **OK** button.
The changed title name is displayed in the title field of the selected title.



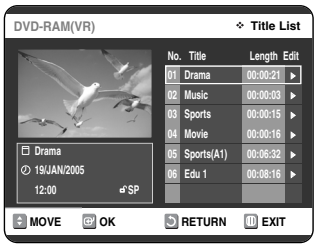
Editing

Locking (Protecting) a Title

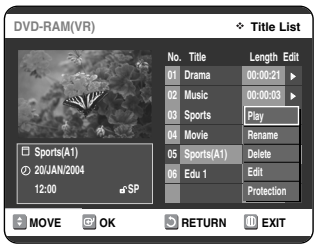
Follow these instructions to lock a title to protect it from accidental deletion.

DVD-RAM DVD-RW DVD-R

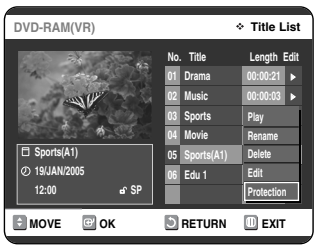
1 Press the **TITLE LIST** button.
The Title List screen is displayed.
Using the **MENU** button
- Press the MENU button.
- Press the ▲▼ buttons to select **Disc Navigation**, then press the **OK** or ► button twice.



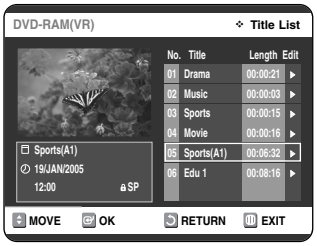
2 Press the ▲▼ buttons to select a title you want to protect in the **Title List**, then press the **OK** or ► button.



3 Press the ▲▼ buttons to select **Protection**, then press the **OK** or ► button.



4 Press the ◄► buttons to select **On**, then press the **OK** button. The key icon on the information window for the selected title changes to the locked status. (→)

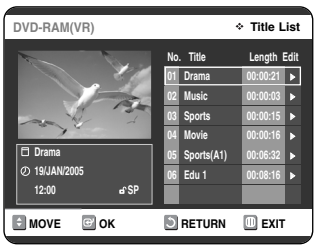


Deleting a Title

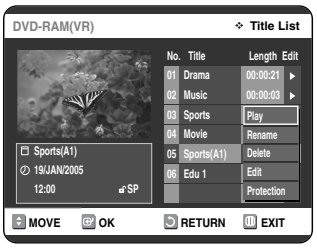
Follow these instructions to delete a title from the Title List.

DVD-RAM DVD-RW DVD-R

1 Press the **TITLE LIST** button.
The Title List screen is displayed.
Using the **MENU** button.
- Press the **MENU** button.
- Press the ▲▼ buttons to select **Disc Navigation**, then press the **OK** or ► button twice.

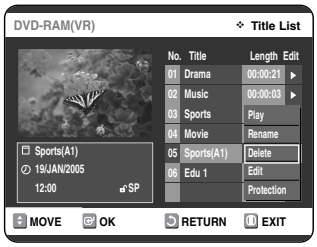


2 Press the ▲▼ buttons to select a title you want to delete in the Title List, then press the **OK** or ► button.

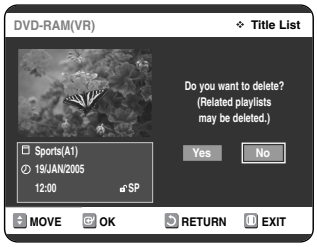


Editing

3 Press the ▲▼ buttons to select **Delete**, then press the **OK** or ► button.



You will be prompted with a confirmation message.
DVD-RAM/-RW(VR mode): Since Playlist is present, the message 'Do you want to delete? (Related playlists may be deleted.)' is displayed.



DVD-RW(V mode)/-R: Since Playlist is not present, the message 'Do you want to delete?' is displayed.

- The message depend on the type of disc.

4 Press the ◄► buttons to select **Yes**, then press the **OK** button.

Note

- You cannot delete a protected title.
  If you want to delete a protected title, select **Off** in the Title Protection menu. (See page 71)
- Once a title is deleted from the Title List it cannot be recovered.
- Once DVD-RW/-R is finalised, it cannot be deleted.
- With DVD-R, titles are only deleted from the menu, however, the Title remains physically on the disc.

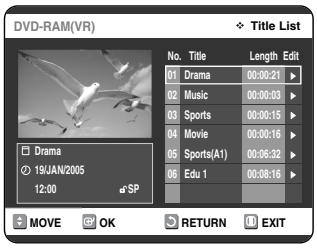
Deleting a Section of a Title

Follow these instructions to delete a section of a Title List title.

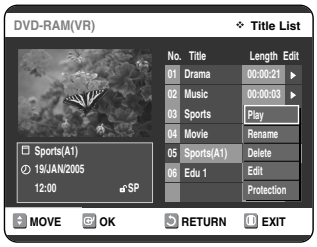
DVD-RAM DVD-RW

(VR mode)

1 Press the **TITLE LIST** button.
The Title List screen is displayed.
Using the **MENU** button
- Press the **MENU** button.
- Press the ▲▼ buttons to select **Disc Navigation**, then press the **OK** or ► button twice.



2 Press the ▲▼ buttons to select a title you want to delete from the **Title List**, then press the **OK** or ► button.



3 Press the ▲▼ buttons to select **Edit**, then press the **OK** or ► button.
The **Edit Title List** screen is displayed.

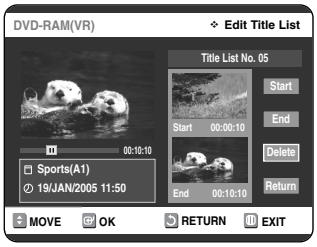
Editing

4 Press the **OK** button at the starting point.
The image and starting point time are displayed in the section deletion starting point window.

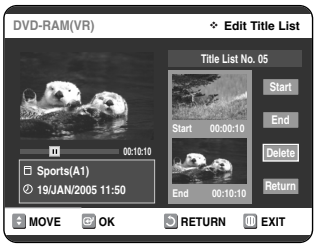
Edit Title List Screen Elements

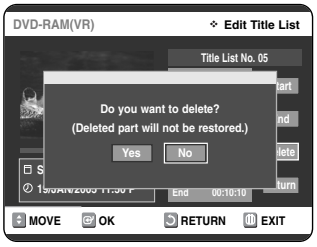
① Playback bar
② Playtime
③ Section deletion starting point window and time
④ Section deletion end point window and time
- Select the start and end points of the section you want to delete using the playback related buttons.
- Playback related buttons: (▶II, I◀◀, ◀◀, ▶▶).

5 Press the **OK** button at the end point.
The image and end point time are displayed in the Section deletion ending point window.



6 Press the ▲▼ buttons to select **Delete**, then press the **OK** button.





7 Press the ◀ ▶ buttons to select **Yes**, then press the **OK** button.
The selected section has been deleted.
To return to the Title List, press the ▲▼ buttons to select Return.

Note

- The length of the section to be deleted must be at least 5 seconds long.
- If the length of the section to be deleted is less than 5 seconds, you will be prompted with the message 'The range is too short.'.
- If the end time precedes the starting time, you will be prompted with the message 'End point cannot be marked earlier than start point'.
- The section cannot be deleted when it includes a still picture.
- Press the **MENU** button after the operation has finished.
  The Title List screen will disappear.

Advanced Editing (Playlist)

Creating a Playlist

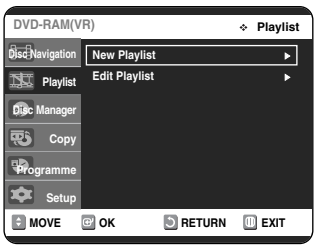
Follow these instructions to create a new playlist title from a recorded title.

DVD-RAM DVD-RW

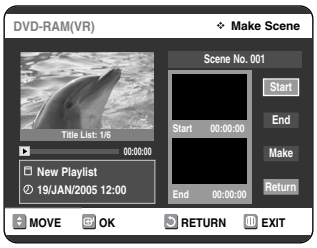
(VR mode)

1 With the unit in Stop mode, press the **MENU** button.

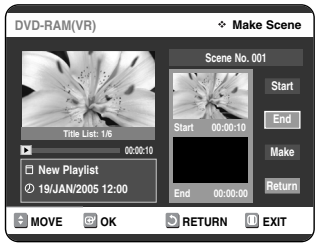
2 Press the ▲▼ buttons to select **Playlist**, then press the **OK** or ► button.



3 Press the ▲▼ buttons to select **New Playlist**, then press the **OK** or ► button.
The **Make Scene** screen is displayed.

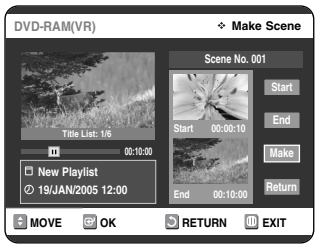


4 Press the **OK** button at the start point.



- The image and time at the start point are dis played on the Start window.
- The yellow-colored selection bar moves to the End item.
- Select the starting point of the section from which you want to create a new scene using the playback related buttons (▶II,I◀◀,▶▶I,◀◀,▶▶).

5 Press the **OK** button at the end point.



- The image and end point time are displayed in the End window.
- The yellow-colored selection bar moves to the Make icon.

- To make a new playlist -

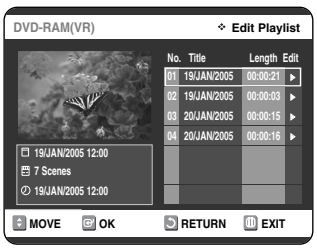
6 Press the ▲▼ buttons to select **Make**, then press the **OK** button.
A new Make Scene screen is displayed.
A new Scene will be added to the current Playlist.

Note

- You can check and see all the scenes on Edit Playlist screen. (See page 77)
- Repeat steps 1~6 if you want to make a new playlist.
- Repeat steps 4~6 if you want to make scenes of the playlist.

- To return to Edit Playlist menu -

7 Press the ▲▼ buttons to select **Return**, then press the **OK** button.
The **Edit Playlist** screen is displayed.



8 Press the **MENU** or **PLAY LIST** button after the operation has finished.
The **Edit Playlist** screen will disappear.

Note

- You can create up to 99 playlist titles.
- Depending on the kind of disc, the displayed screen may have a slight difference.

Editing

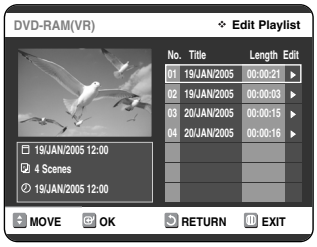
Playing Titles in the Playlist

Follow these instructions to play the playlist titles.

DVD-RAM DVD-RW

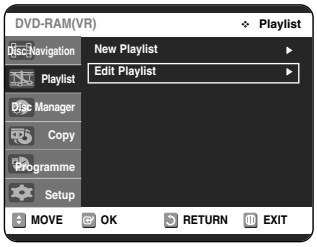
(VR mode)

1 Press the **PLAY LIST** button with the disc stopped.
The Edit Playlist screen is displayed.



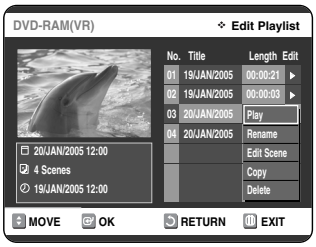
Using the MENU button.

- Press the **MENU** button with the disc stopped.
- Press the ▲▼ buttons to select **Playlist**, then press the **OK** or ► button.
- Press the ▲▼ buttons to select **Edit Playlist**, then press the **OK** or ► button.



2 Press the ▲▼ buttons to select the title you want to play from the Playlist, then press the **OK** or ► button.
The Edit Playlist menu is displayed : Play, Rename, Edit Scene, Copy, Delete.

3 Press the ▲▼ buttons to select **Play**, then press the **OK** or ► button.
The playlist titles will be played back.



4 Press the **STOP** button to stop playing.
The screen returns to the Edit Playlist screen.

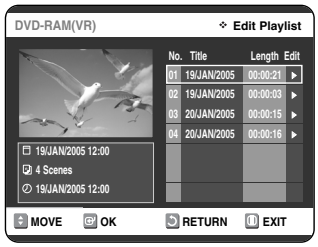
Renaming a Playlist Title

Follow these instructions to rename a playlist Title, i.e. to edit the title of a playlist title.

DVD-RAM DVD-RW

(VR mode)

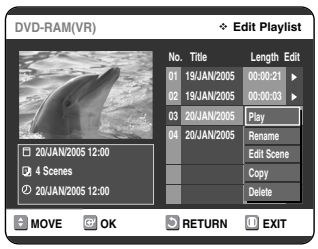
1 Press the **PLAY LIST** button with the disc stopped. The Edit Playlist screen is displayed.



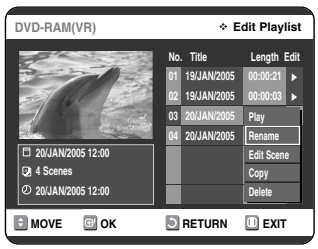
Using the MENU button.

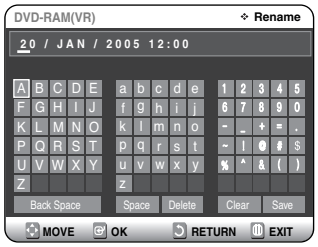
- Press the **MENU** button with the disc stopped.
- Press the ▲▼ buttons to select **Playlist**, then press the **OK** or ► button.
- Press the ▲▼ buttons to select **Edit Playlist**, then press the **OK** or ► button.

2 Press the ▲▼ buttons to select the title you want to rename from the Playlist, then press the **OK** or ► button.
The Edit Playlist menu is displayed: Play, Rename, Edit Scene, Copy, Delete

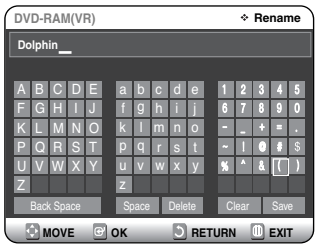


3 Press the ▲▼ buttons to select **Rename**, then press the **OK** button.
The Rename screen is displayed.



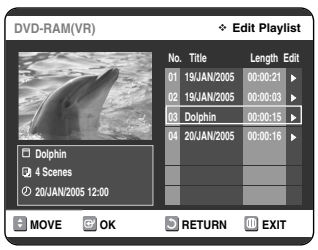


4 Enter the desired characters using the ▲▼ ◄ ► buttons.



- This function is the same as the Rename function in the renaming the title list. (See page 70)
- The maximum number of characters that can be entered is 31.

5 Press the ▲▼ ◄ ► buttons to select **Save**, then press the **OK** button.
The changed title is displayed in the title field of the selected playlist title.



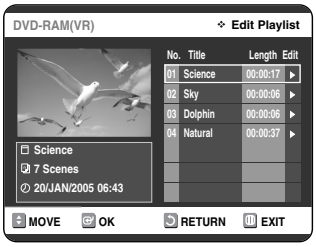
Editing a Scene for the Playlist

Follow these instructions to edit scenes for a playlist.

DVD-RAM DVD-RW

(VR mode)

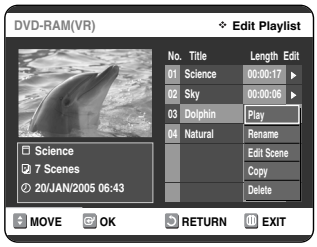
1 Press the **PLAY LIST** button with the disc stopped. The **Edit Playlist** screen is displayed.



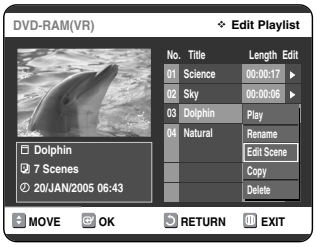
Using the MENU button.

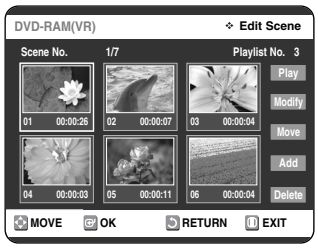
- Press the **MENU** button with the disc stopped.
- Press the ▲▼ buttons to select **Playlist**, then press the **OK** or ► button.
- Press the ▲▼ buttons to select **Edit Playlist**, then press the **OK** or ► button.

2 Press the ▲▼ buttons to select the title you want to edit from the Playlist, and then press the **OK** or ► button.
The **Edit Playlist** menu is displayed: Play, Rename, Edit Scene, Copy, Delete



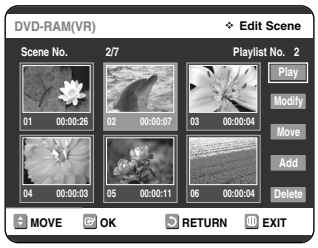
3 Press the ▲▼ buttons to select **Edit Scene**, then press the **OK** or ► button.
The **Edit Scene** screen is displayed.





Playing a Selected Scene

4 Press the ▲▼◄► buttons to select the scene you want to play, then press the **OK** button.
The playlist title to be played is selected.



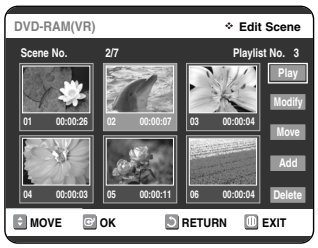
5 Press the **OK** button again.
The selected scene will be played back.

- To stop scene play, press the **STOP** button.

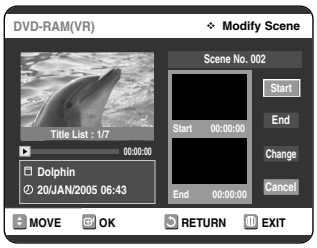
Modifying a Scene (Replacing a Scene)

To setup, follow steps 1 to 3 in page 77.

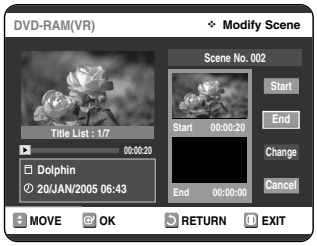
4 Press the ▲▼◄► buttons to select the scene you want to modify, then press the **OK** button.



5 Press the ▲▼ buttons to select **Modify**, then press the **OK** button.
The Modify Scene screen is displayed.

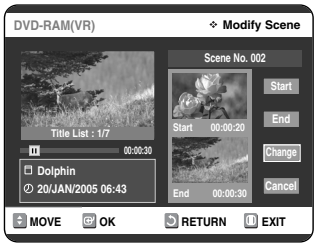


6 Press the **OK** button at the start point of the scene.



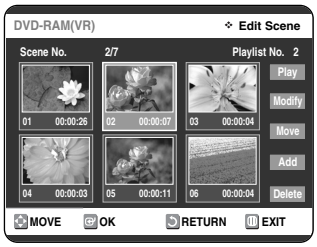
- The image and starting point time are displayed on the Start window.
- Select the starting or ending point of the section you want to modify using the playback related buttons (▶II,I◀◀,▶▶I,▶▶,◀◀).

7 Press the **OK** button at the end point of the scene.



- The image and ending point time are displayed in the End window.

8 Press the ▲▼ buttons to select **Change**, then press the **OK** button.



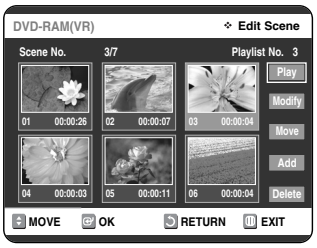
- The scene you want to modify is changed with the selected section.

Editing

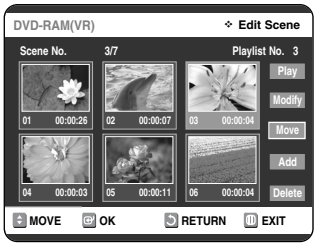
Moving a Scene (Changing the Position of a Scene)

To setup, follow steps 1 to 3 in page 77.

4 Press the ▲▼ ◄► buttons to select the scene you want to move (change the position), then press the **OK** button.

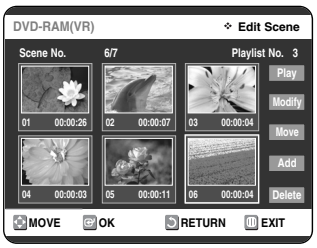


5 Press the ▲▼ buttons to select **Move**, then press the **OK** button.

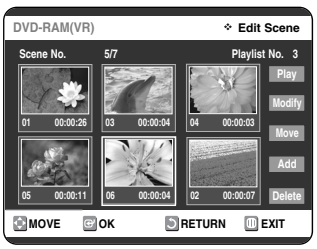


- A yellow selection window is displayed on the scene to be moved.

6 Press the ▲▼ ◄► buttons to select the position to which you want to move the selected scene, then select the **OK** button.



- The selected scene is moved to the selected position.



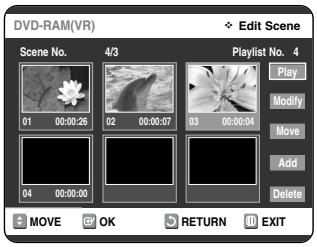
Note

- You cannot move the selected scene to the position of the next scene, because the selected scene should be inserted before that position, which requires no action.
- Depending on the kind of disc, the displayed screen may have a slight difference.

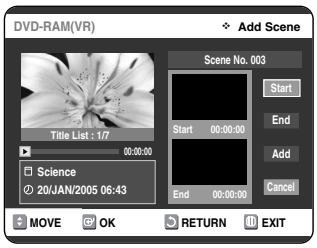
Adding a Scene

To setup, follow steps 1 to 3 in page 77.

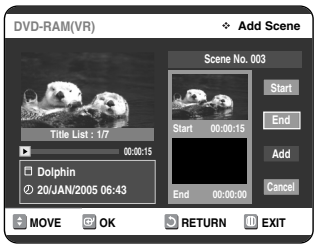
4 Press the ▲▼ ◄► buttons to select the scene that will have a new scene inserted before it, then press the **OK** button.
A yellow selection window is displayed on the scene to be added as the new scene.



5 Press the ▲▼ buttons to select **Add**, then press the **OK** button.
The **Add Scene** screen is displayed.

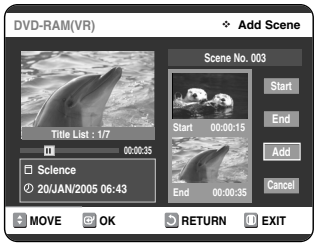


6 Press the **OK** button at the starting point of the scene.



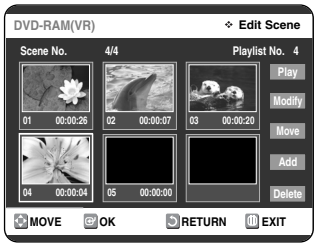
- The image and starting point time are displayed in the Start window.
- Select the end point of the section where you want to add the new scene using the playback related buttons (▶II,I◀◀,▶▶I,◀◀, ▶▶).

7 Press the **OK** button at the end point of the scene.



- The image and time of the end point are displayed in the End window.
- To cancel, press the ▲▼ buttons to select cancel and then press the **OK** button.

8 Press the ▲▼ buttons to select **Add**, then press the **OK** button.

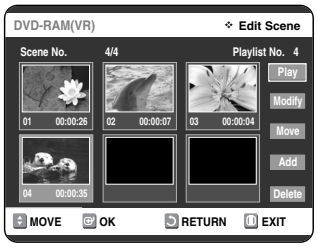


- The section you want to add is inserted prior to the scene selected in step.

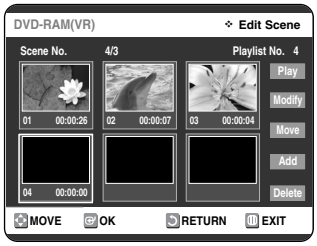
Deleting a Scene

To setup, follow the steps 1 to 3 in page 77.

4 Press the ▲▼◄► buttons to select the scene you want to delete, and then press the **OK** button.

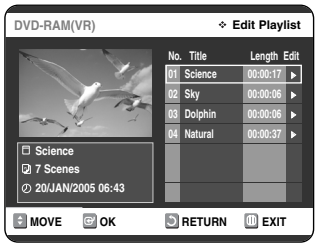


5 Press the ▲▼ buttons to select **Delete**, then press the **OK** button.



Copying a Playlist to the VCR

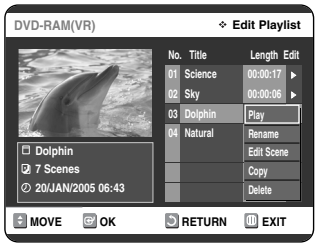
1 Press the **PLAY LIST** button with the disc stopped. The **Edit Playlist** screen is displayed.



Using the MENU button.

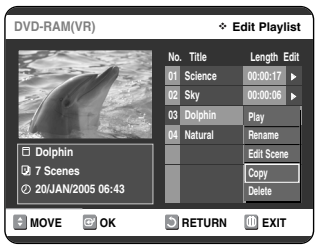
- Press the **MENU** button with the disc stopped.
- Press the ▲▼ buttons to select **Playlist**, then press the **OK** or ► button.
- Press the ▲▼ buttons to select **Edit Playlist**, then press the **OK** or ► button.

2 Press the ▲▼ buttons to select the title you want to edit from the Playlist, and then press the **OK** or ► button.
The Edit Playlist menu is displayed: Play, Rename, Edit Scene, Copy, Delete



3 Press the ▲▼ buttons to select **Copy**, then press the **OK** button.

- The title you choose is played and copied to VCR tape.



4 Press the **MENU** button after the operation has finished. The menu screen will disappear.

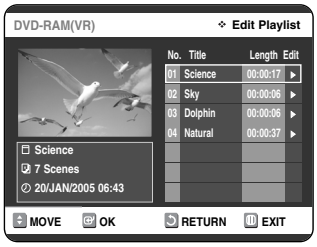
Note

- The playlist can contain up to 99 playlist titles.
- Copy function is not allowed in progressive scan mode.

Editing

Deleting a Playlist from the Playlist

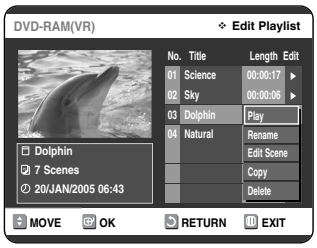
1 Press the **PLAY LIST** button with the disc stopped. The **Edit Playlist** screen is displayed.



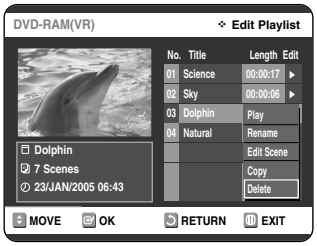
Using the MENU button.

- Press the **MENU** button with the disc stopped.
- Press the ▲▼ buttons to select **Playlist**, then press the **OK** or ► button.
- Press the ▲▼ buttons to select **Edit Playlist**, then press the **OK** or ► button.

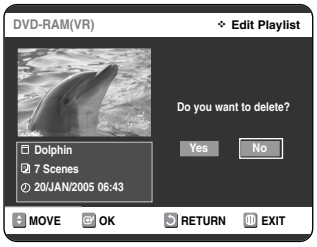
2 Press the ▲▼ buttons to select the title you want to edit from the Playlist, then press the **OK** or ► button.
The delete Playlist menu is displayed: Play, Rename, Edit Scene, Copy, Delete



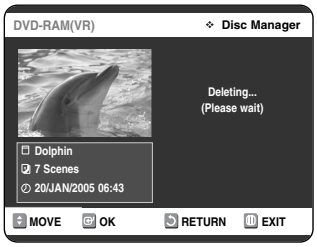
3 Press the ▲▼ buttons to select **Delete**, then press the **OK** button.

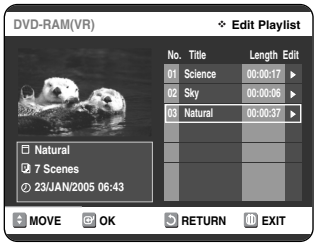


- You will be prompted with the delete confirmation message 'Do you want to delete?'.



4 Press the ◄► buttons to select **Yes**, then press the **OK** button.
You automatically returned to the Edit Playlist screen after the delete operation has finished.





Editing

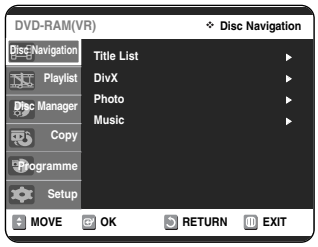
Disc Manager

Editing the Disc Name

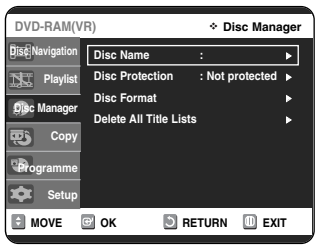
Follow these instructions to give a name to a disc.

DVD-RAM DVD-RW DVD-R

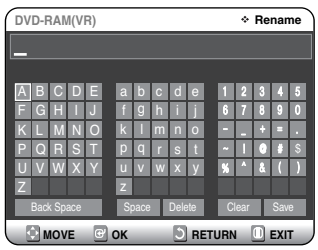
1 With the unit in Stop mode, press the **MENU** button.



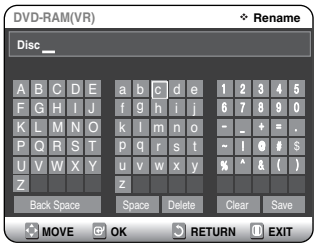
2 Press the ▲▼ buttons to select **Disc Manager**, then press the **OK** or ► button.



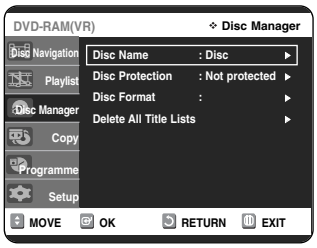
3 Press the ▲▼ buttons to select **Disc Name**, then press the **OK** or ► button.
The Edit Name screen is displayed.


DVD-RAM(VR)
Rename
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
a b c d e f g h i j k l m n o p q r s t u v w x y z
1 2 3 4 5 6 7 8 9 0 - _ + = , ~ ! @ # $ % ^ & ( )
Back Space
Space
Delete
Clear
Save
MOVE
OK
RETURN
EXIT

4 Enter the desired characters using the ▲▼ ◄► buttons.


DVD-RAM(VR)
Rename
Disc _
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
a b c d e f g h i j k l m n o p q r s t u v w x y z
1 2 3 4 5 6 7 8 9 0 - _ + = , ~ ! @ # $ % ^ & ( )
Back Space
Space
Delete
Clear
Save
MOVE
OK
RETURN
EXIT

5 Press the ▲▼ ◄► buttons to select **Save**, then press the **OK** button.
A disc name is given to the disc.



Note

- You may need to clear disc protection before beginning editing.
- Depending on the kind of disc, the displayed screen may be different.

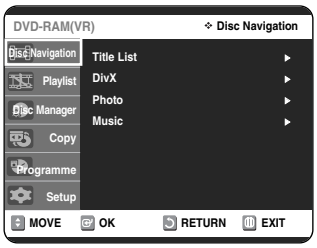
Editing

Disc Protection

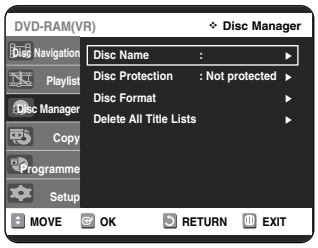
Disc Protect allows you to protect your discs from being formatted or deleted due to unintended operations.

DVD-RAM DVD-RW DVD-R

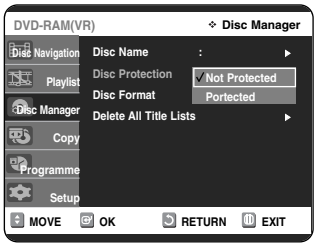
1 With the unit in Stop mode, press the **MENU** button.



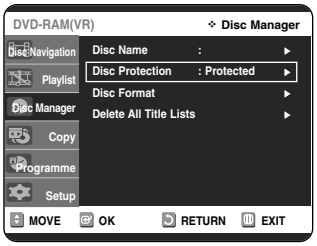
2 Press the ▲▼ buttons to select **Disc Manager**, then press the **OK** or ► button.



3 Press the ▲▼ buttons to select **Disc Protection**, then press the **OK** or ► button.



4 Press the ▲▼ button to select **Protected**, then press the **OK** or ► button.

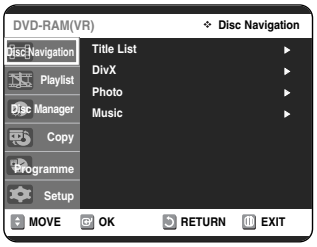


Formatting a Disc

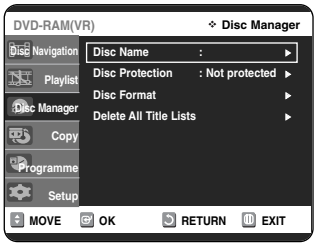
Use these instructions to format a disc.
The Disc Protection should be cleared

DVD-RAM DVD-RW

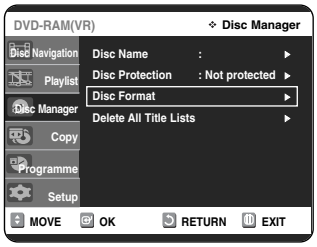
1 With the unit in Stop mode, press the **MENU** button.



2 Press the ▲▼ buttons to select **Disc Manager**, then press the **OK** or ► button.

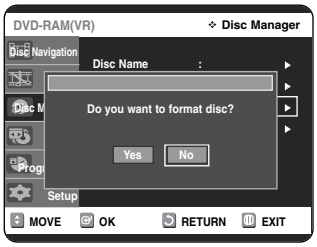


3 Press the ▲▼ buttons to select **Disc Format**, then press the **OK** or ► button.



DVD-RAM

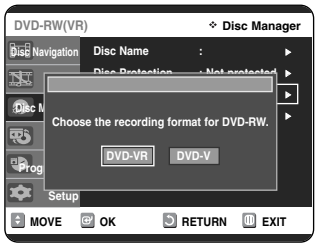
- You will be prompted with the confirmation message 'Do you want to format disc?'.



- If you select "Yes", you will be prompted with the confirmation message 'All data will be deleted. Do you want to continue?'.

DVD-RW

- You will be prompted with the confirmation message 'Choose the recording format for DVD- RW.'



4 Press the ◄► buttons to select **Yes**, then press the **OK** button. The disc is formatted.

DVD-VR and DVD-V mode are defined according to their recording format.

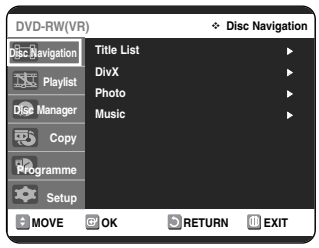
	DVD-VR mode	DVD-V mode
DISC	DVD-RAM DVD-RW	DVD-RW DVD-R

Finalising a Disc

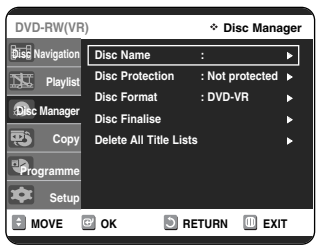
After you record titles onto a DVD-RW/-R disc with your DVD recorder, it needs to be finalised before it can be played back on external devices.

DVD-RW DVD-R

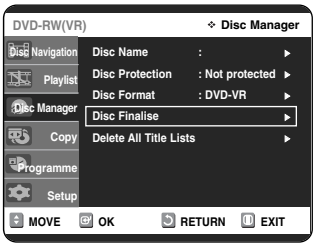
1 With the unit in Stop mode, press the **MENU** button.

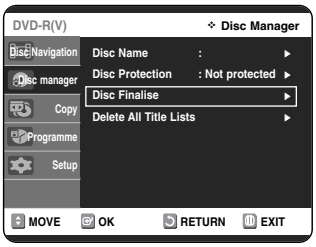


2 Press the ▲▼ buttons to select **Disc Manager**, then press the **OK** or ► button.

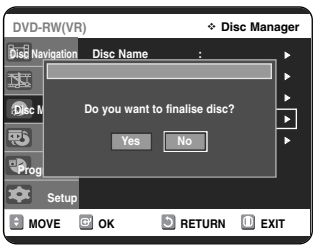


3 Press the ▲▼ button to select **Disc Finalise**, then press the **OK** or ► button.





You will be prompted with the message 'Do you want to finalise disc?'.



If you select Yes, you will be prompted again with the message 'Disc will be finalised. Do you want to continue?'

4 Press the ◄► buttons to select **Yes**, then press the **OK** button. The disc is finalised.

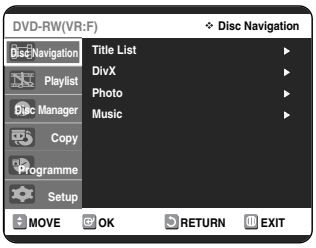
Note

- Once a disc is finalised, you cannot delete titles from the record list.
- After being finalised, the DVD-RW(V mode)/-R operates in the same manner as a DVD-Video.
- Depending on the disc type, the displayed screen may be different .
- Finalising time may be different depending on the amount of data recorded on the disc.
- Data on the disc will be damaged if the recorder is powered off during finalise process.

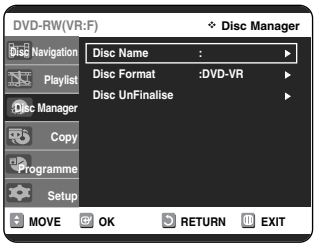
Unfinalising a Disc (V/VR mode)

DVD-RW

1 With the unit in Stop mode, press the **MENU** button.

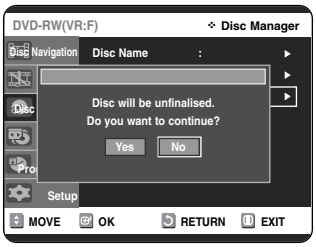


2 Press the ▲▼ buttons to select **Disc Manager**, then press the **OK** or ► button.



3 Press the ▲▼ button to select **Disc Unfinalise**, then press the **OK** or ► button.
You will be prompted with the message 'Do you want to unfinalise disc?'.

If you select Yes, you will be prompted again with the message 'Disc will be unfinalised. Do you want to continue?'



4 Press the ◄► buttons to select **Yes**, then press the **OK** button.
The disc is unfinalised.

Note

- A DVD-RW can be finalised or unfinalised in V mode.

	Finalise	Unfinalise
Mark	DVD-Video(RW)	DVD-RW(V mode)
Operation	Same as DVD-Video	Additional recording, protection and deletion are possible.

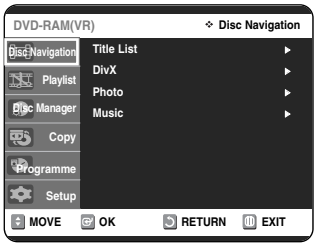
- A DVD-RW can be finalised or unfinalised in VR mode.

	Finalise	Unfinalise
Mark	DVD-RW(VR:F)	DVD-RW(VR mode)
Operation	Additional recording, deletion, editing, and protection are impossible.	Additional recording, deletion, editing, and protection are possible.

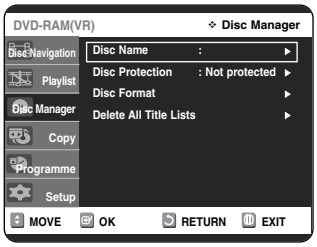
Delete All Title Lists

DVD-RAM DVD-RW DVD-R

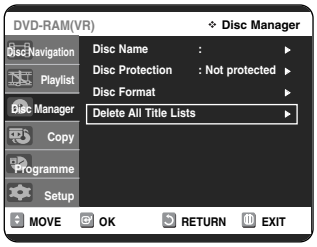
1 With the unit in Stop mode, press the **MENU** button.



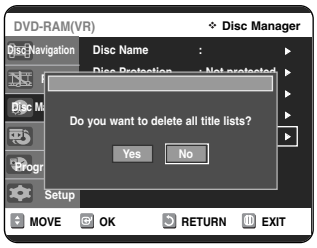
2 Press the ▲▼ buttons to select **Disc Manager**, then press the **OK** or ► button.



3 Press the ▲▼ buttons to select **Delete All Title Lists**, then press the **OK** or ► button.



• You will be prompted with the confirmation message 'Do you want to delete all title lists?'.



• When Protected Title exists: The Delete All Title List function will not operate. If there is a title containing a still picture, however, that function will not operate.
If you want to delete a protected title, disable Protect for it on the Lock item.

4 Press the ◄► buttons to select **Yes**, then press the **OK** button.
All title lists are deleted.

Editing

Reference

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Troubleshooting

▼

Specifications

Troubleshooting (DVD-VIDEO/VIDEO-CD/DVD-RAM/-RW/-R)

If your product malfunctions, go through the check points below before contacting a Samsung authorized service center.

Problem	Explanation/Solution
No power.	• Check whether the power cord is securely plugged into the power outlet. • Did you press the ⏻/I STANDBY/ON button of your DVD Recorder & VCR.
The input is displayed for a while when the power turns on.	The DVD Recorder & VCR requires some time to initialize after it is turned on.
Cannot record TV programmes.	• Check whether the power cord is securely plugged into the power outlet. • Did you set the DVD Recorder & VCR programme settings correctly? • Check the free space on your DVD-RAM/-RW/-R disc. • Check the antenna cable is connected.
Timer recording does not work properly.	• Check the recording time, end time and current time settings again. • Recording will be cancelled if the power is interrupted due to a power failure or other reason during recording.
Cannot record.	• Check whether the disc is formatted. This product can record on formatted discs only. • Check whether your DVD-RAM/-RW/-R disc has a sufficient free space.
I pressed the REC button but there is no response.	Recording is available on DVD-RAM/-RW/-R discs only. If a programme is copy protected, you cannot record it.
I forgot the password for parental lock.	Press and hold ▶▶I button of your DVD Recorder & VCR when the power is on. All settings including password will revert to factory settings. Do not use it if not absolutely required. (Note that this function is available only when there is no disc inserted.)
Cannot play the disc.	• Check whether the disc is inserted correctly with the label facing up. • Check the regional code of your DVD disc. • This DVD Recorder & VCR cannot playback some types of disc.
No sound.	• Are you watching a programme in slow or skip mode? If you are playing a programme at a speed other than normal speed, sound is not output. • Check the connections and initial settings. • Check whether the disc is damaged. Clean up the disc, if necessary. • Check whether the disc is inserted correctly with the label facing up.

Troubleshooting (DVD)

Problem	Explanation/Solution
⊘ icon appears on the screen.	You cannot use the operation or function due to one of the following reasons: (1) Your DVD disc does not support the feature (for example, angles) (2) You've requested a title, chapter, or scan time that is out of the correct range.
Play mode settings are different from the settings configured with the Setting menu.	The disc does not support all the selected functions. In this case, some settings you configure on the Setting menu may not work properly.
Cannot change the aspect ratio.	Aspect ratio is fixed for DVD disc.
No audio output.	Check whether you selected correct digital output options in the Audio Output Options menu.
No video or audio output. The disc tray is ejected after 2 to 5 seconds.	Did you move your DVD Recorder & VCR suddenly from a cold place to a warm place? In this case, do not connect the plug to the power outlet and wait for two hours. Then insert the disc and try to playback again. It will work properly when condensation has evaporated.
Angle operation does not work during playback of a DVD disc.	Angle operation is available only when the disc contains images captured at different angles.
The disc revolves, but no image or bad quality images are output.	• Check whether there is damage or foreign materials on your disc. • Some discs with bad manufacturing quality may not be played back. • If the scene changes from dark to bright suddenly, the screen may jitter temporarily, but it is not a defect.
Desired audio language and subtitle language are not played.	Audio languages and subtitle languages are disc-specific. Only the sound and subtitle languages contained on a DVD disc are available and displayed on the disc menu.
No progressive output.	• Check whether PSO is displayed on front panel. • Make sure to change the component video output using the P.SCAN button when the disc is stopped.
The remote control doesn't work.	• Point the remote control at the remote control sensor on your DVD Recorder & VCR. Operate within distance. (15ft) Remove obstacles between your DVD Recorder & VCR and remote control. • Check whether the batteries are depleted.
Other problems	• Read the table of contents and then find and read the sections describing your problem, and follow the directions given. • Turn the unit off and on. • If your problem still persists, contact your nearest Samsung service center.

Troubleshooting (VCR)

Before contacting a Samsung authorized service center, perform the following simple checks.

Problem	Explanation/Solution
No power	• Check that the power plug is connected to a wall outlet. • Have you pressed the STANDBY/ON button?
You cannot insert a video cassette	• A video cassette can only be inserted with the window side up and the safety tab facing you.
The television programme was not recorded	• Check the DVD Recorder & VCR antenna connections. • Is the DVD Recorder & VCR tuner properly set? • Check if the safety tab is intact on the cassette.
Timer recording was unsuccessful	• Re-check the recording start/stop time settings and the current time • Check whether you insert a tape which has enough time record
No playback picture or the picture is distorted	• Check to see if you are using a prerecorded tape.
You cannot see normal broadcasts Noise bars or streaks on playback	• Check the tuner/external setting. It should be on tuner. • Check the TV antenna connections. • Press the **PROG/TRK** (∧ / ∨) buttons to minimize this effect.
When the ▶II button is pressed during playback, the still picture has severe “noise bar” streaks	• A still picture may have “noise bars”, depending on the condition of the tape. Press the **PROG/TRK** (∧ / ∨) buttons during slow motion to minimize this effect.
Video Head Cleaning	• If poor pictures appear on a variety of cassettes, the video heads may need cleaning. This is not a common problem and unless it appears, the heads should not be cleaned. When cleaning the video heads, read all instructions provided with the head cleaning cassette. Incorrect head cleaning can permanently damage the video heads.

If you are unable to solve the problem after reading the above instructions, note:

- **The model and serial number on the rear of your DVD Recorder & VCR**
- **The warranty information**
- **A clear description of the problem**

Then contact your nearest SAMSUNG authorized service center.

Specifications

General	Power requirements	AC110 - 240V, 50/60Hz
	Power consumption	45 Watts
	Weight	4.8 Kg
	Dimensions	430(W) x 321(D) x 84(H)
	Operating temp.	+5°C to +35°C
	Other conditions	Keep level when operating. Less than 75% operating humidity
Input	Video input (Rear)	RCA jack : 1.0Vp-p(unbalanced) 75Ω
	Audio input (Rear)	RCA jack : -8dBm, 47Kohm unbalanced
	Front input	RCA jack, DV
Output	RF out	UHF 21-69 (Initial CH36)
	Audio (DVD, VCR)	RCA jack, Audio L/R
	Audio (DVD only)	Digital audio out OPTICAL COAXIAL
	Video (DVD, VCR)	RCA jack, S-Video Out, Component out
VCR	Tape format	VHS type video tape
	Colour system	PAL
	Tuning system	B/G, D/K, I
	Video S/N	Above 43dB (standard recording)
	Resolution	Above 240 lines (standard recording)
	Audio S/N	Above 68dB (Hi-Fi), 39dB (Mono)
	Audio frequency characteristics	20Hz-20KHz (Hi-Fi)
DVD	Picture Compression format	MPEG-II
	Audio Compression format	Dolby AC-3 256kbps
	Recording Quality	XP (8 Mbps), SP (4 Mbps), LP (2 Mbps), EP (1.2/0.8 Mbps)
	Video S/N	Ratio Min. 50dB at standard recording
	Audio S/N	Ratio Min. 75dB
	Audio frequency characteristics	20 Hz ~ 20 KHz

Audio Output

For DVD discs, audio signals recorded at 96kHz sampling frequency are converted into and output at 48kHz.

Disc Type	DVD	VCD	AUDIO CD(CD-DA)
Analog Audio Output	48 / 96KHz	44.1KHz	44.1KHz
Digital Audio Output	48KHz	44.1KHz	44.1KHz

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